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&lt;211&gt; 2380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4825

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&lt;210&gt; 4828

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4828

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Trp	Leu	Pro	Ser	Ser	Pro	Ala	Arg	Ser	Pro	Ser	Pro	Ala	Val	Pro	Leu		
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Arg	Val	Val	Pro	Thr	Leu	Ser	Thr	Thr	Asp	Met	Lys	Thr	Ala	Asp	Lys		
			260					265						270			
Val	Glu	Leu	Gly	Asp	Ser	Asp	Leu	Lys	Ile	Met	Leu	Lys	Lys	His	His		
		275					280					285					
Glu	Lys	Arg	Lys	His	Gln	Pro	Asp	His	Pro	Asp	Leu	Leu	Thr	Gly	Asp		
	290					295					300						
Leu	Thr	Leu	Asn	Asp	Ile	Met	Thr	Arg	Val	Asn	Ala	Gly	Arg	Lys	Gly		
305					310					315					320		
Ser	Leu	Ala	Ala	Leu	Tyr	Asp	Leu	Ala	Val	Leu	Lys	Lys	Lys	Val	Lys		
				325					330						335		
Glu	Lys	Glu	Glu	Lys	Lys	Lys	Lys	Lys	Ile	Lys	Thr	Ile	Lys	Ser	Glu		
			340					345					350				
Ala	Glu	Asp	Leu	Ala	Glu	Pro	Leu	Ser	Ser	Thr	Glu	Gly	Val	Ala	Pro		
		355					360					365					
Leu	Ser	Gln	Ala	Pro	Ser	Pro	Leu	Ala	Ile	Pro	Ala	Ile	Lys	Glu	Glu		
	370					375					380						
Pro	Leu	Glu	Asp	Leu	Lys	Pro	Cys	Leu	Gly	Ile	Asn	Glu	Ile	Ser	Ser		
385					390					395					400		
Ser	Phe	Phe	Ser	Leu	Leu	Leu	Glu	Ile	Leu	Leu	Leu	Glu	Ser	Gln	Ala		
				405</													

[illegible]



```

945          950          955          960
Ile Pro Leu Thr Ala Thr Asn Phe Arg Ile Gln Gly Lys Asp Val Leu
          965          970          975
Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val
          980          985          990
Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val
          995          1000          1005
Thr Thr Val Lys Leu Thr Gln Asp Leu Phe Gly Thr Gly Gly Asn Thr
          1010          1015          1020
Thr Gly Lys Gly Ile Ser Ala Thr Leu His Val Thr Ser Asn Pro Val
          1025          1030          1035          1040
His Ala Ala Asp Ser Pro Ala Lys Ala Ser Ser Ala Ser Ala Pro Ser
          1045          1050          1055
Ser Thr Pro Thr Gly Thr Thr Val Val Lys Val Thr Pro Asp Leu Lys
          1060          1065          1070
Pro Thr Glu Ala Ser Ser Ser Ala Phe Arg Leu Met Pro Ala Leu Gly
          1075          1080          1085
Val Ser Val Ala Asp Gln Lys Gly Lys Ser Thr Val Ala Ser Ser Glu
          1090          1095          1100
Ala Lys Pro Ala Ala Thr Ile Arg Ile Val Gln Gly Leu Gly Val Met
          1105          1110          1115          1120
Pro Pro Lys Ala Gly Gln Thr Ile Thr Val Ala Thr His Ala Lys Gln
          1125          1130          1135
Gly Ala Ser Val Ala Ser Gly Ser Gly Thr Val His Thr Ser Ala Val
          1140          1145          1150
Ser Leu Pro Ser Met Asn Ala Ala Val Ser Lys Thr Val Ala Val Ala
          1155          1160          1165
Ser Gly Ala Ala Ser Thr Pro Ile Ser Ile Ser Thr Gly Ala Pro Thr
          1170          1175          1180
Val Arg Gln Val Pro Val Ser Thr Thr Val Val Ser Thr Ser Gln Ala
          1185          1190          1195          1200
Gly Lys Leu Pro Thr Arg Ile Thr Val Pro Leu Ser Val Ile Ser Gln
          1205          1210          1215
Pro Met Lys Gly Lys Ser Val Val Thr Ala Pro Ile Ile Lys Gly Asn
          1220          1225          1230
Leu Gly Ala Asn Leu Ser Gly Leu Gly Arg Asn Ile Ile Leu Thr Thr
          1235          1240          1245
Met Pro Ala Gly Thr Lys Leu Ile Ala Gly Asn Lys Pro Val Ser Phe
          1250          1255          1260
Leu Thr Ala Gln Gln Leu Gln Gln Leu Gln Gln Gly Gln Ala Thr
          1265          1270          1275          1280
Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr
          1285          1290          1295
Ala Ser Gly Ser Ser Lys Ala Val Ser Thr Val Val Val Thr Thr Ala
          1300          1305          1310
Pro Ser Pro Lys Gln Ala Pro Glu Gln Gln
          1315          1320

```

&lt;210&gt; 4829

&lt;211&gt; 1605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4829

cccggagagc gaggacgacg tgaaggcgga gtggcgcccc gcgaggtagc gccaggcgag  
60  
ctggagacca tggccaaaat ggagggtgaaa acctcacttc tggacaatat gattggagtt  
120  
ggggatatgg ttctttttaga acctctcaat gaggagacct tcatcaacaa cctcaagaag  
180  
cgctttgacc acagtgaat atacacttac attggaagtg tggttatata tgtaaccca  
240  
tatcgggtctt taccatttta ttcaccagag aaagtggaag aatacaggaa cagaaatttt  
300  
tatgaactga gccctcacat ctttgccctt tcggatgaag catacagatc cctacgagat  
360  
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc  
420  
agtaagcttg tcatgtccta tgtggcagct gtttgtggaa aaggagcaga agttaatcaa  
480  
gttaaagaac agctttttaca gtccaacccg gtccctggaag cttttggaaa tgccaaaact  
540  
gtaaggaatg acaactcctc tagatttggc aaatatatgg atattgaatt tgactttaaa  
600  
ggcgatccac taggaggagt aataagtaac tatcttttag agaaatctcg ggttggttaa  
660  
cagccaagag gtgaaagaaa cttccatgtg ttctatcagc tgctctctgg tgcctctgaa  
720  
gagtcctca ataaacttaa gcttgagagg gatttcagca ggtataacta cctgagtctg  
780  
gattcggcca aagtgaatgg agtgatgat gcagcaaatt ttagaaccgt gcggaatgcc  
840  
atgcagattg tgggctttat ggatcatgaa gctgagtctg tcttggcggt ggtggcagca  
900  
gtgttgaaac tggggaacat tgagttcaag cccgaatctc gagtgaatgg tctagatgaa  
960  
agcaaatca aagataaaaa tgagttaaaa gaaatttggtg aattgaccgg cattgatcaa  
1020  
tcagttctag aacgagcatt cagtttccga acagttgagg ccaaacagga gaaagtttca  
1080  
actacactga atgtggctca ggcttattat gcccgatg ctctggctaa aaacctctac  
1140  
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1200  
gtgagaaaga aggtcatggg tgttctggac atttatggct ttgagatttt cgaggacaac  
1260  
agctttgagc agttcattat taattattgt aacgaaaagc tgcaacaaat cttcattgaa  
1320  
cttactctta aagaagagca ggaggagtat atacgggagg atatagaatg gactcacatt  
1380  
gactacttca ataatgctat catttgtgac ctaatagaaa ataacacaaa tggaatcctg  
1440  
gccatgttgg atgaagagt cctcagacct ggcacagtca ctgatgagac cttcttagaa  
1500  
aagctgaacc aagtatgtgc caccaccag cattttgaaa gcaggatgag caagtgctct  
1560  
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1605

<210> 4830  
 <211> 512  
 <212> PRT  
 <213> Homo sapiens

<400> 4830  
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 1 5 10 15  
 Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile  
 20 25 30  
 Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile  
 35 40 45  
 Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr  
 50 55 60  
 Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu  
 65 70 75 80  
 Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg  
 85 90 95  
 Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala  
 100 105 110  
 Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val  
 115 120 125  
 Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln  
 130 135 140  
 Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn  
 145 150 155 160  
 Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe  
 165 170 175  
 Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys  
 180 185 190  
 Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe  
 195 200 205  
 Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys  
 210 215 220  
 Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala  
 225 230 235 240  
 Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn  
 245 250 255  
 Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu  
 260 265 270  
 Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro  
 275 280 285  
 Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn  
 290 295 300  
 Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu  
 305 310 315 320  
 Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val  
 325 330 335  
 Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu  
 340 345 350  
 Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile  
 355 360 365  
 Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

```

      370      375      380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385      390      395      400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405      410      415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile
      420      425      430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435      440      445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450      455      460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465      470      475      480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
      485      490      495
Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
      500      505      510

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<210> 4831  
 <211> 578  
 <212> DNA  
 <213> Homo sapiens

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<400> 4831
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atgctgagct cagacttcag gccagcctg ccgctgcccc acttcaacaa gcacctgctg
120
ggcgccgagc acggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac
180
cagcagagcg tgctcgggcg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acgcggccgg ccaagtgagg cccggagacc ccggcccag ggcgccaggc ctgagcccca
360
tgctccag caaccagggc ccgcgggtgt ggccccacc agcccaggcc tggactctcc
420
tcagttctgt gtcgtgttcg ggtttttcct ctgtgactgg gccgtcttgg tgtctcgtgg
480
cacgcgtcac agtgggtgcta gtctgttttt aacaaaagag gatgaaaagc caaaaaaaaa
540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
578

```

<210> 4832  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

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<400> 4832
Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
1      5      10      15
Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

```



&lt;400&gt; 4834

```

Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
 1           5           10           15
Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
      20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
      35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
      50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
      85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
      100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
      115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
      130          135          140
Leu Ser Thr
145

```

&lt;210&gt; 4835

&lt;211&gt; 1846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4835

```

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60
ctgcacaaag ctttcgcccc agctgaactg gaacgcacgt accaggagat ccaggagtta
120
cagtgggaga tccagaatac cagccatctg gccgttgatg gggaccgggc agctgcttgg
180
cccgtgggta ttccagcacc atcccgcctg gcctcccgtt ttgaggtgct gcgctgggac
240
tacttcacgg agcagcacgc tttctcctgc gccgatggct caccctcgct cccactgcgt
300
ggggctgacc gggctgatgt ggccgatgtt ctggggacag ctctagagga gctgaaccgc
360
cgctaccacc cggccttgct gctccagaag cagcagctgg tgaatggcta ccgacgcttt
420
gatccggccc ggggtatgga atacacgctg gacttgacgc tggaggcact gacccccag
480
ggaggccgcc ggcccctcac tcgccgagtg cagctgctcc ggccgctgag ccgctgagg
540
atcttgctg tgcctatgt cactgaggcc tcacgtctca ctgtgctgct gcctctagct
600
ggggtgagc gtgacctggc ccctggtctt ttggaggcct ttgccactgc agcactggag
660
cctggtgatg ctgcgcagc cctgacctg ctgctactgt atgagccgcg ccaggccccag
720
cgcgtggccc atgcagatgt cttcgacact gtcaaggccc acgtggcaga gctggagcgg
780

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cgtttccccc gtgcccgggt gccatggctc agtgtgcaga cagccgcacc ctcaccactg  
 840  
 cgcctcatgg atctactctc caagaagcac ccgctggaca cactgttctt gctggccggg  
 900  
 ccagacacgg tgctcacgcc tgacttcttg aaccgctgcc gcatgcatgc catctccggc  
 960  
 tggcaggcct tctttcccat gcatttcaa gccttccacc cagctgtggc cccaccacaa  
 1020  
 gggcctgggc cccagagct ggggccgtga cactggccgc tttgatcgcc aggcagccag  
 1080  
 cgaggcctgc ttctacaact ccgactacgt ggcagcccgt gggcgccctgg ggcagctca  
 1140  
 gaacaagaag aggagctgct ggagagcctg gatgtgtacg agctgttctt ccacttctcc  
 1200  
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 1260  
 tgcagcgcga ggctcagtga ggacctgtac caccgctgcc tccagagcgt gcttgagggc  
 1320  
 ctcggtctcc gaaccagct ggccatgcta ctctttgaac aggagcaggg caacagcacc  
 1380  
 tgaccccacc ctgtccccgt gggcccgtgg cattggccac accccacccc acttctcccc  
 1440  
 caaaaccaga gccacctgcc agcctcgctg ggcagggctg gccgtagcca gaccccaagc  
 1500  
 tggcccactg gtcccctctc tggctctgtg ggtccctggg ctctggacaa gcactggggg  
 1560  
 acgtgcccc agagccaccc acttctcatc ccaaaccag tttccctgcc cctgacgct  
 1620  
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 1680  
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 1740  
 gggggcatct cccaacttct cccttttga ccctgccgaa gctccctgcc ttaataaac  
 1800  
 tggccaagtg tggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
 1846

&lt;210&gt; 4836

&lt;211&gt; 349

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4836

Xaa	His	Phe	Arg	Ser	Ala	Leu	Thr	Ala	His	Pro	Val	Arg	Asp	Pro	Val
1				5				10						15	
His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	Glu	Arg
			20					25				30			
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
		35					40				45				
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50					55				60					
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65				70				75				80			
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

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<210> 4837
<211> 906
<212> DNA
<213> Homo sapiens
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<400> 4837
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120
actgtaaatt atgatagtgt caattctgac aactctaagc caaagatatt taaaagtcaa
180
atagagaaca taaatttgac caatggcagc aatgggagga acacagagtc ccagctgcc
240
attcaccctt gtggaaatcc tacagtgatt gaggacgctt tggacaagat taaaagcaat
300
gaccctgaca ccacagaagt caatttgaac aacattgaga acatcacaac acagaccctt
360
accgcctttg ctgaagccct caaggacaac actgtggtga agacgttcag tctggccaac
420
```



acgcatgccg acgacagtgc agccatggcc attgcagaga tgctcaaagt caatgagcac  
 480  
 atcaccaacg taaacgtcga gtccaacttc ataacgggaa aggggatacct ggccatcatg  
 540  
 agagctctcc agcacaacac ggtgctcacg gagctgcgtt tccataacca gaggcacatc  
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 atgggcagcc aggtggaaat ggagattgtc aagctgctga aggagaacac gacgctgctg  
 660  
 aggtgggat accattttga actcccagga ccaagaatga gcatgacgag cattttgaca  
 720  
 agaaatatgg ataaacagag gcaaaaacgt ttgcaggagc aaaaacagca ggagggatac  
 780  
 gatggaggac ccaatcttag gaccaaagtc tggcaaagag gaacacctag ccttccct  
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 900  
 acgcgt  
 906

<210> 4838  
 <211> 302  
 <212> PRT  
 <213> Homo sapiens

<400> 4838  
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 Gln Glu Glu Glu Glu Glu Glu Asp Ser Asp Glu Gly Glu Arg Thr Ile  
 20 25 30  
 Glu Thr Ala Lys Gly Ile Asn Gly Thr Val Asn Tyr Asp Ser Val Asn  
 35 40 45  
 Ser Asp Asn Ser Lys Pro Lys Ile Phe Lys Ser Gln Ile Glu Asn Ile  
 50 55 60  
 Asn Leu Thr Asn Gly Ser Asn Gly Arg Asn Thr Glu Ser Pro Ala Ala  
 65 70 75 80  
 Ile His Pro Cys Gly Asn Pro Thr Val Ile Glu Asp Ala Leu Asp Lys  
 85 90 95  
 Ile Lys Ser Asn Asp Pro Asp Thr Thr Glu Val Asn Leu Asn Asn Ile  
 100 105 110  
 Glu Asn Ile Thr Thr Gln Thr Leu Thr Arg Phe Ala Glu Ala Leu Lys  
 115 120 125  
 Asp Asn Thr Val Val Lys Thr Phe Ser Leu Ala Asn Thr His Ala Asp  
 130 135 140  
 Asp Ser Ala Ala Met Ala Ile Ala Glu Met Leu Lys Val Asn Glu His  
 145 150 155 160  
 Ile Thr Asn Val Asn Val Glu Ser Asn Phe Ile Thr Gly Lys Gly Ile  
 165 170 175  
 Leu Ala Ile Met Arg Ala Leu Gln His Asn Thr Val Leu Thr Glu Leu  
 180 185 190  
 Arg Phe His Asn Gln Arg His Ile Met Gly Ser Gln Val Glu Met Glu  
 195 200 205  
 Ile Val Lys Leu Leu Lys Glu Asn Thr Thr Leu Leu Arg Leu Gly Tyr  
 210 215 220  
 His Phe Glu Leu Pro Gly Pro Arg Met Ser Met Thr Ser Ile Leu Thr

225		230		235		240									
Arg	Asn	Met	Asp	Lys	Gln	Arg	Gln	Lys	Arg	Leu	Gln	Glu	Gln	Lys	Gln
			245			250								255	
Gln	Glu	Gly	Tyr	Asp	Gly	Gly	Pro	Asn	Leu	Arg	Thr	Lys	Val	Trp	Gln
		260				265							270		
Arg	Gly	Thr	Pro	Ser	Pro	Ser	Pro	Tyr	Val	Ser	Pro	Arg	His	Ser	Pro
		275				280						285			
Trp	Ser	Ser	Pro	Lys	Leu	Pro	Tyr	Gly	Glu	Thr	Thr	Thr	Arg		
	290					295						300			

&lt;210&gt; 4839

&lt;211&gt; 1313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4839

```

nnggcgctca gggccccac aagaggtcga gggaatgttg tgggctgggg cacaccagca
60
cggcagaaac tggagaaagc gagagacgtc gccagggacc cagggacctc tccctccagt
120
tccccggggc cgcccgggcc tgatggccac tcacgctata gcgcccactc tgtcctgggc
180
catcccgccg cagcagtgtg gccccagcc cgggcgcctg aatgctctcc ctccggatcg
240
ctgctcgggt cccactttg gcgaccgntg ccccgagtc ctgcttcccc ggggcctgct
300
ctgtatcagg cgctgcgcc ttcaagggtg cccggcccg ctgccctccc caagagccga
360
gtttgcgctc ctcccgaat cgtttgagag aaggacaaac ttttggcagg atggaaatct
420
agatgagcct gtccggagca gaacaccct gattagccag gccacccg cc atccacatct
480
gctcggcaaa gaaggaaggc agcttggtcc agaccttggg gagcagctgc agactgcctg
540
cctagaacag cctccttact ccagcctggc agggaaaggaa ggaacctgac ttgcttcgca
600
ggatctggaa gtcagccgg cagagctgag agccgcagtt gcatcctgga gctgatgct
660
agaagcagct tccgtctttg ggttcttgct gctcggcct ctgctctggt cagtttgctg
720
ttgtgttttt ctccccatg ttgggggtgg ggggtacagg gaaataaaat gctttctccc
780
aggccctaa tcttccccca tgctccatc agcctcaaag ctgctgacag tcatgaactg
840
caccttccag cctgccccat aagctactca aagcaaattc aaattctctt ctggccaggg
900
ggaaggcgag atgctccctc ctctctcaag cctccctggc tcattgatcc attttgaggg
960
catttggggg tcaaagttga gaccagattg cttcagtttg tataaaatta gcatttctta
1020
tcacaccaag gccacacctg ttctctggcc tcacaaacca gtgaggatgt aaaggtttgt
1080
tgaggtggag gaacagaagt gaaatgagca atctgctcca tttagaagtc agtcgcttcg
1140

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gctgttcatt ccactaatat ttatctagta cctattctgt gccaaagcatt gtctctacct  
 1200  
 cagtttgcca caaatatgaa aaaaaaaaaa ttcttggaac tgtgaggcctt caatgtgttg  
 1260  
 tggaccaata tacaaataaa ccaatggaaa agaaaaaaaa aaaaaaaaaa aaa  
 1313

<210> 4840

<211> 66

<212> PRT

<213> Homo sapiens

<400> 4840

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&lt;210&gt; 4845

&lt;211&gt; 3286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4845

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&lt;210&gt; 4846

&lt;211&gt; 626

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4846

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&lt;210&gt; 4847

&lt;211&gt; 2804

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4847

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<213> Homo sapiens

<400> 4850

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<212> DNA

<213> Homo sapiens

<400> 4851

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 780  
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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

Met	Ser	Cys	Thr	Ile	Glu	Lys	Ile	Leu	Thr	Asp	Ala	Lys	Thr	Leu	Leu
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Glu	Arg	Leu	Arg	Glu	His	Asp	Ala	Ala	Ala	Glu	Ser	Leu	Val	Asp	Gln
			20				25						30		
Ser	Ala	Ala	Leu	His	Arg	Arg	Val	Ala	Ala	Met	Arg	Glu	Ala	Gly	Thr
			35				40					45			
Ala	Leu	Pro	Asp	Gln	Tyr	Gln	Glu	Asp	Ala	Ser	Asp	Met	Lys	Asp	Met
		50				55				60					
Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
65					70				75					80	
Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85					90					95		
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
			100					105					110		
Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
		115					120					125			
Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
						135					140				
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
145					150					155				160	
Asp	Gln	Phe	Cys	Lys	Ile	Gln	Glu	Lys	Leu	Ala	Gln	Leu	Glu	Leu	Glu
				165					170				175		
Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
			180					185					190		
Ala	Arg	Lys	Glu	Asn	Ser	Met	Asp	Thr	Ala	Ser	Gln	Ala	Ile	Lys	
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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240  
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360  
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420  
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720  
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780  
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900  
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1467

&lt;210&gt; 4854

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4854

Met Leu Gln Phe Val Arg Ala Gly Ala Arg Ala Trp Leu Arg Pro Thr

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Gly Ser Gln Gly Leu Ser Ser Leu Ala Glu Glu Ala Ala Arg Ala Thr			
	20	25	30
Glu Asn Pro Glu Gln Val Ala Ser Glu Gly Leu Pro Glu Pro Val Leu			
	35	40	45
Arg Lys Val Glu Leu Pro Val Pro Thr His Arg Arg Pro Val Gln Ala			
	50	55	60
Trp Val Glu Ser Leu Arg Gly Phe Glu Gln Glu Arg Val Gly Leu Ala			
65	70	75	80
Asp Leu His Pro Asp Val Phe Ala Thr Ala Pro Arg Leu Asp Ile Leu			
	85	90	95
His Gln Val Ala Met Trp Gln Lys Asn Phe Lys Arg Ile Ser Tyr Ala			
	100	105	110
Lys Thr Lys Thr Arg Ala Glu Val Arg Gly Gly Gly Arg Lys Pro Xaa			
	115	120	125
Ala Ala Glu Arg His Trp Ala Gly Pro Ala Trp Gln His Pro Leu Ser			
	130	135	140
Ala Leu Ala Arg Arg Arg Cys Cys Pro Trp Pro Pro Gly Pro Thr Ser			
145	150	155	160
Tyr Tyr Tyr Met Leu Pro Met Lys Val Arg Ala Leu Gly Leu Lys Val			
	165	170	175
Ala Leu Thr Val Lys Leu Ala Gln Asp Asp Leu His Ile Met Asp Ser			
	180	185	190
Leu Glu Leu Pro Thr Gly Asp Pro Gln Tyr Leu Thr Glu Leu Ala His			
	195	200	205
Tyr Arg Arg Trp Gly Asp Ser Val Leu Leu Val Asp Leu Thr His Glu			
	210	215	220
Glu Met Pro Gln Ser Ile Val Glu Ala Thr Ser Arg Leu Lys Thr Phe			
225	230	235	240
Asn Leu Ile Pro Ala Val Gly Leu Asn Val His Ser Met Leu Lys His			
	245	250	255
Gln Thr Leu Val Leu Thr Leu Pro Thr Val Ala Phe Leu Glu Asp Lys			
	260	265	270
Leu Leu Trp Gln Asp Ser Arg Tyr Arg Pro Leu Tyr Pro Phe Ser Leu			
	275	280	285
Pro Tyr Ser Asp Phe Pro Arg Pro Leu Pro His Ala Thr Gln Gly Pro			
	290	295	300
Ala Ala Thr Pro Tyr His Cys			
305	310		

&lt;210&gt; 4855

&lt;211&gt; 750

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4855

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240

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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Ala	Thr	Ala	Ala	Pro	Ala	Gly	Gly	Phe	Gly	Gly	Phe	Gly	Thr	Thr	Ser
		20					25					30			
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
		35				40					45				
Thr	Thr	Gly	Leu	Phe	Gly	Gly	Thr	Gln	Asn	Lys	Gly	Phe	Gly	Phe	Gly
	50				55					60					
Thr	Gly	Phe	Gly	Thr	Thr	Thr	Gly	Thr	Ser	Thr	Gly	Leu	Gly	Thr	Gly
65				70					75					80	
Leu	Gly	Thr	Gly	Leu	Gly	Phe	Gly	Gly	Phe	Asn	Thr	Gln	Gln	Gln	Gln
			85					90					95		
Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
		100					105					110			
Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
		115					120					125			
Thr	Leu	Leu	Gly	Asp	Glu	Arg	Asp	Ala	Ile	Leu	Ala	Lys	Trp	Asn	Gln
	130					135					140				
Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
145				150					155					160	
Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala
			165					170					175		
Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
		180					185						190		
Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
		195					200					205			
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
	210					215					220				
Thr	Val	Asn	Val	Glu	Gly	Thr	Lys	Thr	Leu	Pro	Asp	Asp			

225

230

235

&lt;210&gt; 4857

&lt;211&gt; 2887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4857

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2880  
tcagaat  
2887

&lt;210&gt; 4858

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4858

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Gly Trp Trp Arg Leu Gly Ser Ser Ser Gln Ala Ala Cys Leu Lys Gln
      20           25           30
Ile Leu Leu Leu Gln Leu Asp Leu Ile Glu Gln Gln Gln Gln Leu
      35           40           45
Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
      50           55           60
Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
      85           90           95
Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
      100          105          110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
      115          120          125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
      130          135          140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
145          150          155          160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
      165          170          175
Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
      180          185          190
Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
      195          200          205
Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
      210          215          220
Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
225          230          235          240
Leu Cys Arg Trp His Gln Pro Pro Pro Ser Pro Leu Pro Leu Arg Glu
      245          250          255
Ser Ser Pro Lys Lys Glu Glu Thr Val Ala Ser Lys Ala
      260          265

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&lt;210&gt; 4859

&lt;211&gt; 689

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4859

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240

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 689

&lt;210&gt; 4860

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4860

Met	Arg	Thr	Arg	Leu	Phe	Ala	Val	Pro	Gly	Arg	Val	Ala	Lys	Glu	Asp
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Trp	Thr	Leu	Asp	Leu	Glu	Pro	Arg	Gly	Pro	Val	His	Ile	His	Pro	Thr
			20					25					30		
Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
		35					40				45				
Val	Pro	Arg	Gly	Met	Glu	Cys	Pro	Gly	Leu	Leu	Gln	Glu	Leu	Ser	Thr
	50					55					60				
Gln	Gly	Gln	Gly	Glu	Pro	Arg	Glu	Lys	Arg	Pro	Gly	Leu	Leu	Ser	Phe
65					70				75						80
Leu	Ile	Cys	Ser	Cys	Pro	Pro	Leu	Ser	Ser	Thr	Pro	Leu	Pro	Phe	Pro
				85					90					95	
Arg	Leu	Ser	Pro	Pro	Trp	Ala	Phe	Val	Cys	Phe	Gly	Arg	Cys	His	Leu
			100					105					110		
Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
		115					120					125			
His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
	130					135					140				
Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
145					150				155						160
Pro	Cys	Ala	Val	Cys	Thr	Leu	His	Ser	Leu	Pro	Cys	Leu			
				165					170						

&lt;210&gt; 4861

&lt;211&gt; 1622

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4861

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1020  
gttatcaaga gaaagagggtg aggatggaag gatggagaaa aacagactgt ggggaaggatc  
1080  
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1140  
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1320  
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1380  
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1440  
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1620  
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1622

<210> 4862  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 4862  
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 Gly Tyr Leu Lys Leu Val Cys Val Ser Phe Gln Arg Gln Gly Phe His  
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 Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp  
 35 40 45  
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu  
 50 55 60  
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg  
 65 70 75 80  
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala  
 85 90 95  
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly  
 100 105 110  
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu  
 115 120 125  
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val  
 130 135 140  
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg  
 145 150 155 160  
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe  
 165 170 175  
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu  
 180 185 190  
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys  
 195 200 205  
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu  
 210 215 220  
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu  
 225 230 235 240  
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly  
 245 250 255  
 Thr Val Lys Gln  
 260

<210> 4863  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 4863  
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 120  
 accatcaacc ctgaggacga cacggatcct ggccatgctg acctggtcct ctatatcact  
 180

aggtttgacc tggagttgcc tgatggtaac ncggcagtgc ggggcgtcac ccagctgggc  
 240  
 ggggcctgct ccccaacctg gagctgcctc attaccgagg aactggctt cgacctggga  
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<210> 4864  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4864  
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 Glu Pro Glu Gly Ala Pro Asn Ile Thr Ala Asn Leu Thr Ser Ser Leu  
 20 25 30  
 Leu Ser Val Cys Gly Trp Ser Gln Thr Ile Asn Pro Glu Asp Asp Thr  
 35 40 45  
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu  
 50 55 60  
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly  
 65 70 75 80  
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly  
 85 90 95  
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly  
 100 105 110  
 Leu Glu His Asp Gly Ala  
 115

<210> 4865  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 4865  
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 ctcacaaac accagcgcac ccacactggc gagcgccct acaaatgtcc ccgttgcggc  
 120  
 aaggccttcg ccgacagctc ttacctgctt cgccaccagc gcactcactc tggccagaag  
 180  
 ccctacaagt gcccacattg tggcaaggcc ttcggcgaca gctcctacct cctgcgacac  
 240  
 cagcgcaccc acagccacga gcggccctac agctgcaccg agtgcggcaa gtgctatagc  
 300  
 cagaactcgt ccctgcgcag ccatecagagg gtgcacaccg gtcagaggcc cttcagctgt  
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 420  
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 444

<210> 4866

<211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 4866  
 Thr Gly Glu Lys Pro Tyr Lys Cys Glu Val Cys Ser Lys Ala Phe Ser  
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 Gln Ser Ser Asp Leu Ile Lys His Gln Arg Thr His Thr Gly Glu Arg  
 20 25 30  
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr  
 35 40 45  
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys  
 50 55 60  
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His  
 65 70 75 80  
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly  
 85 90 95  
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His  
 100 105 110  
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser  
 115 120 125  
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys  
 130 135 140  
 Pro Phe Thr Arg  
 145

<210> 4867  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 4867  
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 120  
 ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat cccagccca  
 180  
 gagacagccc cagggggtgc tgctggaga cagccgggat agcttcagtc tctgaccct  
 240  
 gacacgggct gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa  
 300  
 ggggcagggc caaggctatg gccacaagc tcctcagcag ctgagatggg tgcaggaggt  
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 agcgctctac toccatagct cccactgta t  
 391

<210> 4868  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 4868  
 Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

```

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Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20           25           30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35           40           45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50           55           60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65           70           75           80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85           90           95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100          105          110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115          120          125

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&lt;210&gt; 4869

&lt;211&gt; 418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4869

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cccgggaaga gggtcgcccg ccataaatgc ggaaacagtt aaatggcgat gggaatagga
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tgggaactca atggtgttgc tacctttgga tggactcgga ggcagcccag cttcctggga
120
caggactgca cggactgcct ggggaggggt ctttggtccc cgggttcctg cagggggggt
180
cggggaggcc ctgtgagcag ttggtcacag gtgggtccca ttcgatgcga tcctgttcct
240
ccccaacagc cctggagaag ggggacgttg cctgctgtgg ctgcggtgtg tttcctggcc
300
tgtgagaggc ggggccagag tggccgttgg gaatctgggt gttgcaaggt gaccacaaac
360
agctctctgg gggaggagga ggaaaatgca attgattttc aggagccttc tgaggtcg
418

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&lt;210&gt; 4870

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4870

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Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
      1           5           10           15
Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20           25           30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35           40           45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50           55           60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65           70           75           80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

```



				85						90					95				
Glu	Ser	Gly	Cys	Cys	Lys	Val	Thr	Thr	Asn	Ser	Ser	Leu	Gly	Glu	Glu				
			100						105				110						
Glu	Glu	Asn	Ala	Ile	Asp	Phe	Gln	Glu	Pro	Ser	Glu	Val							
		115					120					125							

&lt;210&gt; 4871

&lt;211&gt; 1354

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4871

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nntttttttt tttttttttt tttttctaga atccgcttta ttatggcacc tgggtgggtct
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120
cagccccctca ggccatgctg ctgctcagct gcatggcaaa gtccctgcaca tgctccttca
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240
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480
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540
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600
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660
cctcgccct cggagcagcg cttcctgcat cgtctaagcc ggctgacttc aggggggcca
720
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780
atggtgggga ctgccccctc ctttagcctg tgatatccac tgattccac cagctcaa
840
cagtcctcct caaagtgttt ggagcagaag tagatgtact cggatgccgg gtcccacagg
900
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960
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1080
acctccctgc gaccccgccg ggtaagcacc accgcccggg cacagacgag gcaacggagg
1140
cctcgagaag aaaagcagtt tcctcagcgt catctggcag gtaacagagt ggggcgggtc
1200
caagccggct agacttcccg tcctccctt cccgactgca ttcagtcccg ccgggaccgt
1260

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tccgcttcac ctcccaccca caggttcaag cctcctcagt atctgagaaa ggcgcgaagc  
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 1354

<210> 4872  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 4872  
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 Gln Pro Leu Arg Pro Cys Cys Cys Ser Ala Ala Trp Gln Ser Pro Ala  
 20 25 30  
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro  
 35 40 45  
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala  
 50 55 60  
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His  
 65 70 75 80  
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu  
 85 90

<210> 4873  
 <211> 948  
 <212> DNA  
 <213> Homo sapiens

<400> 4873  
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 120  
 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg  
 180  
 gaacacgacc tggccgatgt ggttcaaatt gcagtggaag acctgagccc tgaccaccca  
 240  
 ggtacagagc tgtgggacag tgttgttttg gagaatcatg tagtgacaga tgaagacgaa  
 300  
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 360  
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 420  
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 480  
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 540  
 aacaaagtgc gatggtaaga acagaccagg gtgccggggc cttcaggtca cttgggggaga  
 600  
 agcgcgtcac ctctcgccc atgcccgcag cttagtggct cagtttgctg gagatgcgca  
 660  
 gtgtctgcct cagcagtctc agcagtttct aactaaagct gactttagtt agaccgaaac  
 720

cgaacacatg gcacccctgcc aggatgacct gaagtcaccc tcacctttcc tttccacata  
 780  
 aagccggccc atacaccttt tctttggaac taaccaccca gatcttagaa gatgtacacg  
 840  
 tgcttctttc ctttttcccta ctctacctgg ctagtcttta gatatgtttt tcttcgtatg  
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<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
		35					40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
	50					55					60				
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65				70					75					80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
			85						90					95	
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100						105					110	
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
			115					120						125	

<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 120  
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 180  
 aaaatacttt gcagctggtg agaaatatca tacctcctct gtcttcaca aagcaciaag  
 240  
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 300  
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 420  
 gccccaatgc tgttcatgag gtggagaagt ggctgccccg gctgcatgct cttgtcgtag  
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gacctggcctt gggtagagat gatcgtccac ccagttcttg acagcccca aa tgctgttcat  
 540  
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 720  
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 960  
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<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

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Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
			20					25					30		
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln
		35				40					45				
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
	50				55					60					
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
65				70					75					80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
			85					90					95		
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
		100				105						110			
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
	115				120					125					
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
	130				135					140					
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
145				150				155						160	
Ser	Gly	Ser	Leu	Gly	Val	Leu	Val	His	Trp	Ala	Leu	Leu	Ala	Gly	Pro

							165			170			175		
Gln	Lys	Thr	Asn	Gly	Ser	Ser	Pro	Leu	Leu	Val	Ala	Ala	Phe	Gly	Ala
							180			185			190		
Cys	Ser	Leu	Thr	Arg	Gln	Cys	Asn	His	Gln	Ala	Phe	Gln	Lys	His	Gly
							195			200			205		
Arg	Ser	Thr	Thr	Thr	Ser	Asp	Met	Ile	Ala	Glu	Val	Gly	Ala	Ala	Phe
							210			215			220		
Ser	Lys	Leu	Phe	Glu	Thr										
225					230										

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<210> 4877
<211> 1182
<212> DNA
<213> Homo sapiens
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120
gttcaatgaa tgcgtgcgga atgaatgaac gactctagtg aaagagactc caatgacgca
180
ggccgggatt tgcggacacg agccccgcgc cggaagcat tctggggatt gtagtttctc
240
cgtgacgcgg tgactcgag agcactgacg cactctgcgc ccggaggaca gagcgccccg
300
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360
cgctagcttc ggcggcgacc cagacgggga aagcggaagg aatgtcgct gcaagcaggc
420
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480
agcctgatca tcctactgca gggcctccag ggccgggtaa ccactgtgga cctgcgggat
540
gagagcgtgg ccacggacg catagacaat gtcgatgctt tcatgaacat ccgcctggcc
600
aaagtcacct acacggaccg ttgggggcat caggtcaagc tggatgacct ctttgtgaca
660
ggccgcaatg tccgctacgt ccacatcca gatgacgtga acatcacctc gaccattgag
720
cagcagctgc agattatcca tcgggtgcga aactttggtg gcaagggcca aggcgggtg
780
gaatttcccc caaaaaaact gtaagtgagg ccctcagca gccctggccc caactcggag
840
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960
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1020
aggtgacaat ccccttttt gatgatctga atctctgact tattgattat ggaacctgtc
1080
aagtagtttt caactctccc agtgaggata attaaacatg ctcagcctga gccacctcta
1140

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1182

<210> 4878

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4878

Met	Ala	Val	Ser	His	Ser	Val	Lys	Glu	Arg	Thr	Ile	Ser	Glu	Asn	Ser
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Leu	Ile	Ile	Leu	Leu	Gln	Gly	Leu	Gln	Gly	Arg	Val	Thr	Thr	Val	Asp
			20					25					30		
Leu	Arg	Asp	Glu	Ser	Val	Ala	His	Gly	Arg	Ile	Asp	Asn	Val	Asp	Ala
		35					40					45			
Phe	Met	Asn	Ile	Arg	Leu	Ala	Lys	Val	Thr	Tyr	Thr	Asp	Arg	Trp	Gly
	50					55				60					
His	Gln	Val	Lys	Leu	Asp	Asp	Leu	Phe	Val	Thr	Gly	Arg	Asn	Val	Arg
65					70					75				80	
Tyr	Val	His	Ile	Pro	Asp	Asp	Val	Asn	Ile	Thr	Ser	Thr	Ile	Glu	Gln
			85					90						95	
Gln	Leu	Gln	Ile	His	Arg	Val	Arg	Asn	Phe	Gly	Gly	Lys	Gly	Gln	
		100					105					110			
Gly	Arg	Trp	Glu	Phe	Pro	Pro	Lys	Lys	Leu						
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<210> 4879

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 4879

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120  
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180  
ggaggggcaa gaggaggagg agagcctgcc gttccaactt gccatcaga gaccggaca  
240  
cggcctggtg tgtggcttgc tgctgggag ggatgcacag ggcctcctga gggacaggat  
300  
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360  
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420  
tctcatgaca tccgtggagc ttgcgaggca gcgtggactg gtgactgtga aggaaggccc  
480  
ccgtggtaga atgagctgga gcacgctcta agagagatgc ctgcttcta aagatctaca  
540  
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600  
acaatggctc aggtgtcagg ggaggccgga ggttttccag catttgctc atgccagcac  
660

ctttgaaccg gtctcttaga agaagacaca catcctgggt gtacagtgggt gaaatgggga  
 720  
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 780  
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 1200  
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 1800  
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 1920  
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 1941

&lt;210&gt; 4880

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4880

Met Val Arg Ser Ala His His Ser Gly Thr Glu Ala Ser Leu Glu Thr  
 1 5 10 15  
 His Lys Pro Gly Leu Gly Lys Cys Pro Asp Leu Pro Gly Gly His Thr

20							25					30					
Ser	Leu	Ala	Ala	Ser	Ala	Gly	His	Ala	Ala	Ser	Pro	Val	Leu	Pro	Ser		
35							40					45					
Ala	Thr	Ala	Ser	Gly	Pro	His	Val	Lys	Ser	His	Leu	Thr	Arg	Val	Val		
50							55					60					
Thr	Thr	Val	Leu	Phe	Trp	Gly	Phe	Ser	Lys	Ala	Ser	Pro	Val	Val	Leu		
65	70							75					80				
Arg	Gly	His	Ser	Glu	Gln	Ala	Asn	Thr	Ala	Arg	Val	Thr	His	Tyr	Thr		
85							90					95					
Gln	Arg	Lys	Asp	Asn	Glu	Gln	Met	Ala	Ile	Val	Glu	Asn	Ser	Val	Val		
100							105					110					
Cys	Phe	Ser	Asn	Ala	Thr	Tyr	Phe	Ser	Arg	Gln	Val	Ile	Leu	Pro	Met		
115							120					125					
Met	Thr	Ser	Ala	Thr	Lys	Leu	Arg	Ala	Arg	Gly	Leu	Pro	Met	Arg	Leu		
130							135					140					
Val	Glu	Ser	Asn	His	Val	Cys	Ser	Glu	Ala	Ser	Gly	Pro	Ser	Arg	Pro		
145	150							155					160				
Cys	His	Arg	Pro	Glu	His	Arg	Thr	Val	Ile	Met	Gln	Arg	Ala	Val	Thr		
165							170					175					
Glu	Ala	Gly	Val	Ser	Val	Gly	Gly	Gly	Glu	Glu	Gly	Thr	Ser	Ala	Phe		
180							185					190					
Tyr	Ile	Arg	Ser	Glu	Ala	Thr	Val	Arg	Lys								
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<210> 4881
<211> 1333
<212> DNA
<213> Homo sapiens
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120
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180
gccttggagg gtggccatga cctcacagcc atctgtgacg cctctgaggc ctgtgtggct
240
gctcttcttg gtaacagggt gagccgtctc cctcccccat ccatgcttct gtcaggcagg
300
taagcccggc tctcaggact acccaaggaa caggcagatg ggatgggaca ggggtggagt
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480
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600
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660
gaaggatctt ggtggtacct tgccccaccg tggccagatc ctagggtctc cgggtgccagc
720

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cagggtgacct gctgttggtc tggagtaaga ttctgtgag tgaccaggc agcaatggta  
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 1320  
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 1333

&lt;210&gt; 4882

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4882

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Arg	Glu	Ala	Thr	Gly	Val	Glu	Asn	Arg	Val	Thr	Ser	Pro	Leu	Pro	Pro
			20					25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35					40					45			
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
		50				55					60				
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
65					70					75					80
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
				85					90					95	
Leu	Ser	Gly	Arg												
				100											

&lt;210&gt; 4883

&lt;211&gt; 1371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4883

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 tttctggccg ggctgcgaac aacgtgaact gcgggcttca tctggttatt caaacatcat  
 120

cgcttcctga aaaaaacaaa acaaaagctg accgtatgtc ctatcatcaa tggggaagac  
 180  
 caccttcggt tgttgaactt tcaacacaat tttataactc ggatacaaaa tatttcta  
 240  
 ctacagaagt taatatcggt ggatttatat gataaccaga ttgaagaaat tagtgggctt  
 300  
 tcgactctga gatgtcttcg tgtccttctg ttggggaaaa acagaatcaa gaaaatctca  
 360  
 aatctggaga atctaaaaag cttagatgtc ttggatcttc atggaaatca gattaccaaa  
 420  
 attgaaaata ttaatcattt gtgtgagttg agagttttaa atcttgccag gaacttttta  
 480  
 agtcatgttg ataatcttaa tgggctggat tcactaactg aacttaactt gcgacacaat  
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 780  
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 1371

<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

Thr	Ala	Gly	Phe	Ile	Trp	Leu	Phe	Lys	His	His	Arg	Phe	Leu	Lys	Lys
1				5				10					15		
Thr	Lys	Gln	Lys	Leu	Thr	Val	Cys	Pro	Ile	Ile	Asn	Gly	Glu	Asp	His
		20					25				30				
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
	35						40					45			

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Ile Ser Asn Leu Gln Lys Leu Ile Ser Leu Asp Leu Tyr Asp Asn Gln
 50                      55                      60
Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65                      70                      75                      80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
                      85                      90                      95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
          100                      105                      110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
          115                      120                      125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
          130                      135                      140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145                      150                      155                      160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
          165                      170                      175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
          180                      185                      190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
          195                      200                      205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
          210                      215                      220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225                      230                      235                      240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
          245                      250                      255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
          260                      265                      270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
          275                      280                      285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
          290                      295                      300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305                      310                      315                      320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
          325                      330                      335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
          340                      345                      350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
          355                      360                      365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
          370                      375                      380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
385                      390                      395                      400
Phe Asn Ala Leu Ala Gln Leu Arg Arg Tyr
          405                      410

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&lt;210&gt; 4885

&lt;211&gt; 489

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4885

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 240  
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 300  
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 360  
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 480  
 ggcagtcag  
 489

<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

Leu	Lys	Lys	Glu	Asn	Met	Ala	Ala	Leu	Cys	Arg	Thr	Ala	Glu	Ser	Gln
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Asn	Pro	Met	Gln	Val	Phe	Gln	Gly	Phe	Met	Ser	Phe	Lys	Asp	Val	Ala
			20				25					30			
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
		35				40				45					
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
	50				55				60						
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ile	Ser			
65				70					75						

<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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 cacaatagcc ttgtagtttt agcgcttaga ggcatttaaa cagcctctct cctccagact  
 120  
 acttcactgt agttttattat cctgaccct ccaaatgtg attaccaacc gctaggatga  
 180  
 gttgcatctt attataaagt agcaaattac aagattgtaa cattagactt ttaagaaaa  
 240  
 tccagtcagc ttttatacta atccatctta atttctaggt tactcagaat tccaggtatt  
 300  
 ctgatttggg ctcacatctc gtattgtatt gcctgtattt aactaggaag ttactgccaa  
 360

cagcatctat ctctattaaa tgtagaggaa ttgacaaaag aggggaaaga aagttgttag  
420  
gtaatagaac tgcttcagaa atagggctat tcatgtttga agtggtttctc cttcggtttt  
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720  
ggaactaatt tgacaggatt tctttcaccc gttgacaatc atatgaggaa tctaacaagc  
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960  
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1980

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 2040  
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 2160  
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 2271

<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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Leu	Gly	Asp	Ile	Pro	Leu	Pro	Gly	Ser	Ile	Ser	Asp	Gly	Met	Asn	Ser
		20						25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
		35					40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
		50					55				60				
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75				80	
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
			85						90					95	
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
		115					120					125			
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Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
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His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	Glu	Pro	Ser
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Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
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Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
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Asp	Asp	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	Val	Asp	Glu
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Gly Lys Asn Lys Val Ala Ala Gln Asn Cys Arg Lys Arg Lys Leu Asp				320
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Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys				
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Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile				
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Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu				
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Arg Asp Asp Gln Gly Arg Pro Val Asn Pro Asn His Tyr Ala Leu Gln				
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Cys Thr His Asp Gly Ser Ile Leu Ile Val Pro Lys Glu Leu Val Ala				400
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&lt;210&gt; 4889

&lt;211&gt; 619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4889

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619

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&lt;210&gt; 4890

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4890

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Leu Trp Gln Arg Glu Pro Gly Leu Gly Ser Ile Arg Glu Trp Leu Gln

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Pro Ser Pro Thr Leu Phe Pro Asp Ser Gln Gln Thr Asp Val Gly Ser			
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His Ile His Ser Cys Thr His Ala Met Tyr			
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<210> 4891  
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1998

&lt;210&gt; 4892

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4892

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Ile Lys Arg Gly Arg Gln Ala Glu Glu Cys Ala His Arg Gly Ser  
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Pro Leu Pro Lys Lys Arg Lys Gly Arg Pro Pro Gly His Ile Leu Ser  
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85 90 95  
Ser Thr Thr Phe Val Leu Gly Ser Arg Ala Asn Lys Ala Leu Gly Met  
100 105 110  
Gly Gly Thr Arg Gly Arg Ile Tyr Ile Lys His Pro His Leu Phe Lys

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Ile	Arg	Asp	Leu	Ala	Ser	Asp
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Lys	Met	Arg	Lys	Tyr	Met	Glu
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&lt;210&gt; 4893

&lt;211&gt; 5212

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4893

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<212> PRT

<213> Homo sapiens

<400> 4894

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Lys	Ile	Ser	Glu	Trp	Glu	Gly	Lys	Lys	Glu	Val	Pro	Thr	Pro	Ala	Pro
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Glu	Arg	Arg	Ser	Ser	Asp	Gly	Val	Arg	Thr	Gln	Val	Thr	Glu	Ala	Lys
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Leu Asp Pro Gln Leu Pro Gly Thr Cys Tyr Ser Pro His Cys Pro Pro		175
	180	185
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	195	200
Ser Gly Ser Glu Val Ser Gln Arg Val His Pro Ser Asp Leu Glu Gly		205
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Arg Glu Pro Thr Pro Glu Leu Val Glu Asp Arg Lys Gly Ser Cys Arg		220
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Ser Pro Thr Lys Pro Phe Ile Asn Pro Leu Pro Lys Pro Arg Arg Thr		255
	260	265
Phe Lys His Ala Gly Glu Gly Asp Lys Asp Gly Lys Pro Gly Ile Gly		270
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Phe Arg Lys Glu Lys Arg Asn Leu Pro Pro Leu Pro Ser Leu Pro Pro		285
	290	295
Pro Pro Leu Pro Ser Ser Pro Pro Pro Ser Ser Val Asn Arg Arg Leu		300
305	310	315
Trp Thr Gly Arg Gln Lys Ser Ser Ala Asp His Arg Lys Ser Tyr Glu		320
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Phe Glu Asp Leu Leu Gln Ser Ser Ser Glu Ser Ser Arg Val Asp Trp		335
	340	345
Tyr Ala Gln Thr Lys Leu Gly Leu Thr Arg Thr Leu Ser Glu Glu Asn		350
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Val Tyr Glu Asp Ile Leu Asp Pro Pro Met Lys Glu Asn Pro Tyr Glu		365
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Asp Ile Glu Leu His Gly Arg Cys Leu Gly Lys Lys Xaa Val Ser		380
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&lt;210&gt; 4895

&lt;211&gt; 1087

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4895

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 780  
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<210> 4896

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4896

Met	Glu	Ala	Glu	Val	Asp	Lys	Leu	Glu	Leu	Met	Phe	Gln	Lys	Ala	Glu
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Ser	Asp	Leu	Asp	Tyr	Ile	Gln	Tyr	Arg	Leu	Glu	Tyr	Glu	Ile	Lys	Thr
		20						25					30		
Asn	His	Pro	Asp	Ser	Ala	Ser	Glu	Lys	Asn	Pro	Val	Thr	Leu	Leu	Lys
		35					40					45			
Glu	Leu	Ser	Val	Ile	Lys	Ser	Arg	Tyr	Gln	Thr	Leu	Tyr	Ala	Arg	Phe
	50					55					60				
Lys	Pro	Val	Ala	Val	Glu	Gln	Lys	Glu	Ser	Lys	Ser	Arg	Ile	Cys	Ala
65					70				75					80	
Thr	Val	Lys	Lys	Thr	Met	Asn	Met	Ile	Gln	Lys	Leu	Gln	Lys	Gln	Thr
				85					90					95	
Asp	Leu	Glu	Val	Met	Leu	Ser	Val	Asp	Ser	Cys	His	His			
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<210> 4897

<211> 1733

<212> DNA

<213> Homo sapiens

<400> 4897

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480  
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1620



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 1680  
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 1733

<210> 4898  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 4898  
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 20 25 30  
 Ser Ser Trp Asp Tyr Arg Arg Pro Arg Cys Pro Ala Asn Phe Cys  
 35 40 45  
 Ile Phe Ser Lys Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Gln  
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 65 70 75 80  
 Arg Glu Pro Pro Arg Pro Gly Asp Leu Trp Asn Phe  
 85 90

<210> 4899  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 4899  
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 gtggcggttc tggaggcagc aacggggtcc tttgggggtg gtgggagttc tgctggattc  
 180  
 aggtggaggt gaacatctgc cgttcccaca gccctgcgtg ccccccaaa tgctgctggc  
 240  
 ccacagaatc agccagtgcc acggccccac cacagccagg cttggccctg tcagcggcca  
 300  
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<210> 4900  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4900  
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20	25	30	
Arg Gln Gln Arg Gly Pro Leu Gly Trp Val Gly Val Leu Leu Asp Ser			
35	40	45	
Gly Gly Gly Glu His Leu Pro Phe Pro Gln Pro Cys Val His Pro Gln			
50	55	60	
Met Leu Leu Ala His Arg Ile Ser Gln Cys His Gly Pro Thr Thr Ala			
65	70	75	80
Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser			
85	90	95	
Val Leu Thr Lys Glu Ala Leu Gly Val Ala Val Pro Ala Pro Met Gly			
100	105	110	
Leu Leu Leu Gly Arg Gly			
115			

&lt;210&gt; 4901

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4901

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120
gcacggcggc gtgctgcgct gttgaggacg ctgtcccgcg cgctcccagg ccgccccgag
180
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240
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300
ttggcgccgt ttggggtcgg ggtctgaggc ttgggcgctg cctgggcca gcgagatcg
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420
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660
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720
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960

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 1140  
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 1380  
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<210> 4902

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4902

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Tyr	Val	Gly	Lys	Thr	Ser	Leu	Val	Glu	Arg	Tyr	Val	His	Asp	Arg	Phe
			20					25					30		
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35					40					45			
Val	Met	Ser	Val	Gly	Asp	Arg	Thr	Val	Thr	Leu	Gly	Ile	Trp	Asp	Thr
	50					55				60					
Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65					70				75					80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
				85					90					95	
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
			100					105					110		
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
		115					120					125			
Arg	Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp
	130					135					140				
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145					150				155					160	
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
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<210> 4903

<211> 1064

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

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 960  
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 1064

&lt;210&gt; 4904

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala  
 1 5 10 15  
 Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg  
 20 25 30  
 Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val  
 35 40 45  
 Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

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      50      55      60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65      70      75      80
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
      85      90      95
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100      105

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<210> 4905  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

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<400> 4905
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120
tgccccggcgg tccagcgagg gtggcacgaa caggaggcct gcccctgggc acagcacgct
180
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240
acactggagg acctcgacct ctctacaac aacctcgagc agctgccctg ggaggccctg
300
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360
gccggcgctt tttccgcct gcacaagctg gcccgctgg acatgacctc caaccgctg
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480
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600
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615

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<210> 4906  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

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<400> 4906
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Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
20      25      30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
35      40      45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
50      55      60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
65      70      75      80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

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								85						90						95	
Pro	Arg	Gly	Ser	Pro	Ala	Ser	Ala	Leu	Val	Leu	Ala	Phe	Gly	Gly	Asn						
				100				105				110									
Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Val	Trp	Leu	Arg	Arg	Leu	Ala	Arg						
				115				120				125									
Glu	Asp	Asp	Leu	Glu	Ala	Cys	Ala	Ser	Pro	Pro	Ala	Leu	Gly	Gly	Arg						
				130				135				140									

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<210> 4907
<211> 1748
<212> DNA
<213> Homo sapiens
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<400> 4907
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120
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180
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240
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300
cattcatgct tttagctaaa cactttaaga ttcaatatta ctttttttct ctctcttgaa
360
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420
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600
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660
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780
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840
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900
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960
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1080
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1140
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1200

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 1748

<210> 4908  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 4908  
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 Pro Tyr Pro Cys Pro His Gly Asp Arg Leu Leu Pro Pro Ser Arg Pro  
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 Leu Pro Ala Gly Pro Ala Ser Ala Phe Pro Pro Ala Glu Arg Ser Arg  
 35 40 45  
 Gly His Arg Arg Ala Ser Leu  
 50 55

<210> 4909  
 <211> 1960  
 <212> DNA  
 <213> Homo sapiens

<400> 4909  
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 240  
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420  
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720  
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<400> 4910

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&lt;211&gt; 1862

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4911

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<212> PRT

<213> Homo sapiens

<400> 4912

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405							410							415						
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<212> DNA

<213> Homo sapiens

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<211> 529

<212> PRT

<213> Homo sapiens

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Phe	Phe	Lys	Met	Ala	Val	Thr	Tyr	Ser	Arg	Leu	Phe	Pro	Pro	Ala	Phe
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Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
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Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
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Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
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<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 4918

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4918

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Pro	Pro	Pro	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Pro	Leu
			20					25					30		
Trp	Leu	Gly	Leu	Ala	Gly	Pro	Gly	Ala	Ala	Ala	Asp	Gly	Ser	Glu	Pro
		35					40				45				
Ala	Ala	Gly	Ala	Gly	Arg	Gly	Gly	Ala	Arg	Ala	Val	Arg	Val	Asp	Val
	50					55				60					
Arg	Leu	Pro	Arg	Gln	Asp	Ala	Leu	Val	Leu	Glu	Gly	Val	Arg	Ile	Gly

65					70					75				80	
Ser	Glu	Ala	Asp	Pro	Ala	Pro	Leu	Leu	Gly	Gly	Arg	Leu	Leu	Leu	Met
				85					90					95	
Asp	Val	Val	Asp	Ala	Glu	Gln	Glu	Ala	Pro	Ala	Asp	Gly	Trp	Ile	Ala
			100					105					110		
Val	Ala	Tyr	Val	Gly	Lys	Glu	Gln	Ala	Ala	Gln	Phe	His	Gln	Glu	Asn
		115					120					125			
Lys	Gly	Ser	Gly	Pro	Gln	Ala	Tyr	Pro	Lys	Ala	Leu	Val	Gln	Gln	Met
	130					135					140				
Arg	Arg	Ala	Leu	Phe	Leu	Gly	Ala	Ser	Ala	Leu	Leu	Leu	Ile	Leu	
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Asn	His	Asn	Val	Val	Arg	Glu	Leu	Asp	Ile	Ser	Gln	Leu	Leu	Leu	Arg
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Pro	Val	Ile	Val	Leu	His	Tyr	Ser	Ser	Asn	Val	Thr	Lys	Leu	Leu	Asp
		180						185					190		
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		195					200					205			
Ser	Leu	Ser	Ala	Asn	Ile	Glu	Trp	Lys	Leu	Thr	Leu	Trp	Thr	Thr	Cys
	210					215					220				
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225					230					235					240
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			245						250					255	
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		260						265					270		
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	275						280					285			
Val	Asp	Leu	Phe	Lys	Arg	Arg	Val	Val	Arg	Arg	Leu	Ala	Ser	Leu	Lys
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Thr	Arg	Arg	Cys	Arg	Leu	Ser	Arg	Ala	Ala	Gln	Gly	Leu	Pro	Asp	Pro
305					310					315					320
Gly	Ala	Glu	Thr	Cys	Ala	Val	Cys	Leu	Asp	Tyr	Phe	Cys	Asn	Lys	Gln
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Ala	Ser	Ala	Pro	Val	Ala	Pro	Gly	Ala	Ala	Leu					
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&lt;210&gt; 4919

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4919

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&lt;210&gt; 4920

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4920

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Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
		35					40				45				
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
	50					55				60					
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65				70					75					80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
			85					90					95		
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

	100		105		110										
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
	115		120		125										
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
	130		135		140										
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
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	165		170		175										
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
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Ser	Asp														

&lt;210&gt; 4921

&lt;211&gt; 1272

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4921

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<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

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Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys
		35					40					45		Leu
Thr	Tyr	Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys
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Leu	Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe
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Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala
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Leu	Gln	Pro	Val	Leu	Ala	Ala	Glu	Asp	Phe	Thr	Ile	Phe	Lys	Ala
		100					105						110	Met
Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile	Arg	Ile
		115				120					125			Ile
Gln	Glu	Arg	Asn	Gly	Val	Leu	Pro	Asp	Cys	Leu	Thr	Asp	Gly	Ser
	130					135					140			Asp
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu
145					150					155				Val
Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys
				165				170					175	Arg
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His
		180					185						190	Ser
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His
	195					200					205			Phe
Ala	His	Pro	Pro	Ser	Glu	Val	Lys	Met	His	Phe	Ala	Asn	Gln	Ser
	210					215					220			Ile
Glu	Pro	Leu	Gly	Arg	Lys	Val	Glu	Arg	Ser	Glu	Thr	Ser	Ser	Leu
225					230					235				Pro
Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu
			245					250						Gly
Pro	Ile	Ala	Asn	Leu	Ser	Val	Leu	Gly	Thr	Glu	Glu	Leu	Arg	Gln
		260					265					270		Arg
Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg
	275						280					285		Lys
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys
														Pro

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 305                      310                      315                      320  
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<210> 4924  
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 <212> PRT  
 <213> Homo sapiens

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                          20                      25                      30  
 Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Ser Val Pro  
                          35                      40                      45  
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Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser				80
	85		90	95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg				
	100		105	110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly				
	115		120	125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg				
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145		150		155
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala				160
	165		170	175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro				
	180		185	190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser				
	195		200	205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile				
	210		215	220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser				
225		230		235
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val				240
	245		250	255

&lt;210&gt; 4925

&lt;211&gt; 374

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4925

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374

&lt;210&gt; 4926

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4926

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&lt;210&gt; 4927

&lt;211&gt; 1649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4927

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<211> 405

<212> PRT

<213> Homo sapiens

<400> 4928

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&lt;210&gt; 4929

&lt;211&gt; 5907

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4929

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 Ala Ser Trp His Arg Ser Thr  
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<210> 4933  
 <211> 975  
 <212> DNA  
 <213> Homo sapiens

<400> 4933  
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<210> 4934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4934

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Ala	Tyr	Ile	Glu	Ser	Gln	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Ile
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Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Thr	Tyr	Asp	Asp	Ile	Asp
	50					55					60				
Asp	Val	Val	Ile	Pro	Ala	Pro	Ile	Gln	Gln	Val	Val	Thr	Gly	Gln	Ser
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Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
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Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
			100					105					110		
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
	115					120					125				
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
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Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
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&lt;210&gt; 4935

&lt;211&gt; 1668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4935

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<210> 4936

<211> 337

<212> PRT

<213> Homo sapiens

<400> 4936

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			20					25					30		
Gly	Leu	Leu	Cys	Val	Cys	Trp	Ser	Pro	Asp	Gly	Lys	Tyr	Ile	Val	Thr
			35				40					45			
Gly	Gly	Glu	Asp	Asp	Leu	Val	Thr	Val	Trp	Ser	Phe	Val	Asp	Cys	Arg
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Val	Ile	Ala	Arg	Gly	His	Gly	His	Lys	Ser	Trp	Val	Ser	Val	Val	Ala
65					70					75					80
Phe	Asp	Pro	Tyr	Thr	Thr	Ser	Val	Glu	Glu	Gly	Asp	Pro	Met	Glu	Phe
				85					90					95	
Ser	Gly	Ser	Asp	Glu	Asp	Phe	Gln	Asp	Leu	Leu	His	Phe	Gly	Glu	Ile
			100					105					110		
Glu	Gln	Ile	Val	His	Ser	Pro	Gly	Ser	Pro	Asn	Gly	Thr	Leu	Gln	Thr
			115				120					125			
Ala	Ala	Pro	Ser	Val	Thr	Tyr	Arg	Phe	Gly	Ser	Val	Gly	Gln	Asp	Thr
		130				135					140				
Gln	Leu	Cys	Leu	Trp	Asp	Leu	Thr	Glu	Asp	Ile	Leu	Phe	Pro	His	Gln
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Pro	Leu	Ser	Arg	Ala	Arg	Thr	His	Thr	Asn	Val	Met	Asn	Ala	Thr	Ser
				165					170					175	
Pro	Pro	Ala	Gly	Ser	Asn	Gly	Asn	Ser	Val	Thr	Thr	Pro	Gly	Asn	Ser
			180					185					190		
Val	Pro	Pro	Pro	Leu	Pro	Arg	Ser	Asn	Ser	Leu	Pro	His	Ser	Ala	Val
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Gly	Val	Ser	Lys	Phe	Ala	Thr	Leu	Ser	Leu	His	Asp	Arg	Lys	Glu	Arg
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His	His	Glu	Lys	Asp	His	Lys	Arg	Asn	His	Ser	Met	Gly	His	Ile	Ser
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Ser	Lys	Ser	Ser	Asp	Lys	Leu	Asn	Leu	Val	Thr	Lys	Thr	Lys	Thr	Asp
			260					265					270		
Pro	Ala	Lys	Thr	Leu	Gly	Thr	Pro	Leu	Cys	Pro	Arg	Met	Glu	Asp	Val
			275				280					285			
Pro	Leu	Leu	Glu	Pro	Leu	Ile	Cys	Lys	Lys	Ile	Ala	His	Glu	Arg	Leu
	290					295					300				
Thr	Val	Leu	Ile	Phe	Leu	Glu	Asp	Cys	Ile	Val	Thr	Ala	Cys	Gln	Glu



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<210> 4939

<211> 730

<212> DNA

<213> Homo sapiens

<400> 4939

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<210> 4940

<211> 158

<212> PRT

<213> Homo sapiens

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 35 40 45  
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser  
 50 55 60  
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala  
 65 70 75 80  
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro

85								90				95			
Ser	Lys	Ala	Ser	Pro	Ala	Pro	Ala	Ala	Leu	Met	Cys	Gly	Thr	Thr	Ser
100				105				110							
Pro	Pro	Ile	Ile	Pro	Ala	Ala	Thr	Glu	Pro	Val	Cys	Ala	Ser	Ser	Arg
115				120				125							
Ser	Gly	Arg	Pro	Thr	Ala	Thr	Ala	Cys	Ser	Leu	Gln	Pro	Leu	Leu	Asp
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<211> 1718
<212> DNA
<213> Homo sapiens
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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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			20					25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met	Gly
	50				55					60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65					70				75					80	
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
			85					90						95	
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
		100						105					110		
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
		115					120					125			
Thr	Ala	Phe	Phe	Val	Glu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile	
	130					135				140					
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
145					150				155					160	
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu	Ala
			165					170					175		
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
		180					185						190		
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala	Val
		195				200						205			
His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met	Asp

210	215	220
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	245	250
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln		255
	260	265
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn		270
	275	280
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr		285
	290	295
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp		300
305	310	315
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn		320
	325	330
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr		335
	340	345
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile		350
	355	360
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu		365
	370	375
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala		380
385	390	395
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser		400
	405	410
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr		415
	420	425
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr		430
	435	440
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	450	455
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&lt;210&gt; 4943

&lt;211&gt; 1020

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4943

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420

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<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25					30		
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35					40				45				
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50					55					60				
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
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Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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<210> 4946  
 <211> 197  
 <212> PRT  
 <213> Homo sapiens

<400> 4946  
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 20 25 30  
 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe  
 35 40 45  
 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser  
 50 55 60  
 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg  
 65 70 75 80  
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn  
 85 90 95  
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg  
 100 105 110  
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn  
 115 120 125  
 Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp  
 130 135 140  
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala  
 145 150 155 160  
 His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser  
 165 170 175  
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 Ser Leu Ser Arg Leu  
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<210> 4947  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 4947  
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 300  
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780  
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960  
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1200  
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1320  
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1920  
gtgtcacatg acaccagcat gcattgcagg attattagt tattttgagt ctgtaaaaat  
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2040

aaaaaaaaaa aaaaaaaaaa

2060

<210> 4948

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4948

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Met	Leu	Pro	His	Asn	Ile	Pro	Ser	Ser	Leu	Ser	Leu	Leu	Thr	Ser	Met
			20					25					30		
Val	Asp	Asp	Met	Trp	His	Tyr	Ala	Gly	Asp	Gln	Ser	Thr	Asp	Phe	Asn
	35						40					45			
Trp	Tyr	Thr	Arg	Arg	Ala	Met	Leu	Ala	Ala	Ile	Tyr	Asn	Thr	Thr	Glu
	50					55					60				
Leu	Val	Met	Met	Gln	Asp	Ser	Ser	Pro	Asp	Phe	Glu	Asp	Thr	Trp	Arg
65					70					75					80
Phe	Leu	Glu	Asn	Arg	Val	Asn	Asp	Ala	Met	Asn	Met	Gly	His	Thr	Ala
			85					90						95	
Lys	Gln	Val	Lys	Ser	Thr	Gly	Glu	Ala	Leu	Val	Gln	Gly	Leu	Met	Gly
			100					105					110		
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<210> 4949

<211> 1259

<212> DNA

<213> Homo sapiens

<400> 4949

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 240  
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 360  
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 540  
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 600  
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 660

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 780  
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 1020  
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<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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Arg	Gly	Leu	Val	Asp	Lys	Phe	Asn	Gln	Gly	Met	Val	Asp	Thr	Ala	Lys
		20						25				30			
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu	Ser
		35				40						45			
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly	Leu
	50					55					60				
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln	Glu
65				70						75				80	
Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp
			85					90						95	
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser	Pro
		100						105					110		
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln	Arg
	115						120					125			
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln	Gly
	130				135						140				
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys	Thr
145				150						155				160	
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His	Ser
			165						170					175	
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu	Thr
		180						185					190		
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu	Gly
	195						200					205			
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Ser

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
225	230	235
Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
305	310	315

&lt;210&gt; 4951

&lt;211&gt; 1835

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4951

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1020

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 1740  
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 1800  
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 1835

&lt;210&gt; 4952

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4952

Met Ala Ala Ala Val Ser Gly Ala Leu Gly Arg Ala Gly Trp Arg  
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 20 25 30  
 Val Pro Arg Ala Phe His Ala Ser Ala Val Gly Leu Arg Ser Ser Asp  
 35 40 45  
 Glu Gln Lys Gln Gln Pro Pro Asn Ser Phe Ser Gln Gln His Ser Glu  
 50 55 60  
 Thr Gln Gly Ala Glu Lys Pro Asp Pro Glu Ser His Ser Pro Pro  
 65 70 75 80  
 Arg Tyr Thr Asp Gln Gly Gly Glu Glu Glu Asp Tyr Glu Ser Glu  
 85 90 95  
 Glu Gln Leu Gln His Arg Ile Leu Thr Ala Ala Leu Glu Phe Val Pro  
 100 105 110  
 Ala His Gly Trp Thr Ala Glu Ala Ile Ala Glu Gly Ala Gln Ser Leu  
 115 120 125  
 Gly Leu Ser Ser Ala Ala Ala Ser Met Phe Gly Arg Met Gly Ser Glu  
 130 135 140  
 Leu Ile Leu His Phe Val Thr Gln Cys Asn Thr Arg Leu Thr Arg Val



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145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

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&lt;210&gt; 4953

&lt;211&gt; 355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4953

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120
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180
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240
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300
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355

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&lt;210&gt; 4954

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4954

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Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

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<210> 4955  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

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<400> 4955
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180
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240
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360
gggg
364

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<210> 4956  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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<400> 4956
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Gln Gly Gly Arg Gly His Gln Pro Pro Pro Phe Cys Asp Ile Arg Thr
      20      25      30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35      40      45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
      50      55      60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65      70      75      80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85      90      95
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Gln Gly

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 <211> 872  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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<210> 4959  
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<212> DNA

<213> Homo sapiens

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<210> 4961

<211> 4737

**<212> DNA**

<213> Homo sapiens

<400> 4961

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&lt;210&gt; 4962

&lt;211&gt; 1069

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4962

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Pro Leu Gly Asp Tyr Gly Val Gly	Ser Lys Asn Ser Lys Arg Ala Arg		
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Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
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Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
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Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
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Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
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Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
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Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
130	135	140	
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165	170	175	
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180	185	190	
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
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Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
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Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
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Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr			
290	295	300	
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Ser Pro Pro			
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Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
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Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
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Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr			
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Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
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Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser			
385	390	395	400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp			
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Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu			



Ser	Gly	Trp	Arg	Pro	Asn	Glu	Asp	Asp	Ala	Gly	Asn	Gly	Val	Lys	Pro	
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Pro	Lys	Ser	Ala	His	Ala	Ser	Pro	Glu	Lys	Lys	Lys	Ala	Lys	Glu	Leu	
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Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser
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              995              1000              1005
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Ile Asp Phe Arg Ile Gly Asp Gly Glu Asp Asp Glu Thr Glu Glu Gly
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Ala Gly Asp Met Ser Gln Val Lys Pro Val Leu Ser Lys Ala Glu Arg
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&lt;210&gt; 4963

&lt;211&gt; 1575

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4963

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&lt;210&gt; 4964

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4964

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<211> 1474

<212> DNA

<213> Homo sapiens

<400> 4965

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&lt;210&gt; 4966

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4966

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		50				55					60				
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
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Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
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Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
			100					105					110		
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 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

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Tyr	Ser	Ser	Leu	Gln	Pro	Arg	Thr	Pro	Gly	Leu	Lys	Gln	Ser	Phe	Arg
			20					25				30			
Leu	Asp	Leu	Gln	Asn	Ser	Trp	Xaa	Tyr	Thr	Arg	Glu	Pro	Pro	Cys	Pro
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&lt;400&gt; 4969

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&lt;210&gt; 4970

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4970

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Pro Pro Ala Pro Pro Thr Pro Pro Pro Pro Thr Leu Pro Pro Pro Ile			
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Pro Pro Lys Gly Glu Gly Glu Arg Ala Gly Val Glu Arg Thr Gln Lys			
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Gly Asp Val Gly Xaa Asn Pro Gly Ala Gln Ser Pro Phe His Gln Met			
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Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys			
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&lt;210&gt; 4971

&lt;211&gt; 2939

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4971

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<211> 558

<212> PRT

<213> Homo sapiens

<400> 4972

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Lys	Thr	Gln	Ala	Glu	Ala	Val	Ala	Glu	Ala	Glu	Leu	Lys	Thr	Glu	Ser
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<212> DNA

<213> Homo sapiens

<400> 4973

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 Gly Thr Arg Ile Ile Glu Val Ser Gly Gln Lys Ile Lys Leu Gln Ile  
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 Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ala Val Thr Arg Ser Tyr  
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 Ser Thr Tyr Asn His Leu Ser Ser Trp Leu Thr Asp Ala Arg Asn Leu  
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 Thr Asn Pro Asn Thr Val Ile Ile Leu Ile Gly Asn Lys Ala Asp Leu  
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 Glu Ala Gln Arg Asp Val Thr Tyr Glu Glu Ala Lys Gln Phe Ala Glu  
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&lt;210&gt; 4976

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4976

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			85					90					95		
Arg	Ala	Leu	Thr	Lys	Gly	Leu	Glu	Gly	Thr	Ile	Arg	Ser	Asp	Met	Asp
		100					105					110			
Gln	Ile	Val	Asn	Ser	Lys	Asn	Tyr	Leu	Ile	Gly	Lys	Ile	Lys	Ala	Met
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Val	Ala	Gln	Pro	Ala	Glu	Lys	Ser	Cys	Leu	Glu	Ser	Val	Gln	Pro	Phe



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	165	170
Asn Phe Gln Thr Thr Lys Asp Ser Val Gln Leu Lys Glu His Leu Asp		175
	180	185
Arg Leu Met Asn Leu Pro Leu His Ser Val Lys Met Glu Pro Cys Tyr		190
	195	200
Thr Lys Val Asn Leu Leu His Glu Arg Leu Gln Asp Leu Lys Ser Arg		205
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Phe Arg Phe Pro His Ile Asp Leu Val Val Gln Arg Thr Gln Asn Tyr		220
225	230	235
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	245	250
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	260	265
Lys Val Lys Leu Arg Val Leu Lys Gln Tyr Asp Tyr Asp Ser Ser Thr		270
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&lt;210&gt; 4977

&lt;211&gt; 3309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4977

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&lt;210&gt; 4978

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4978

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Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
			35				40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
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Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
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145					150					155					160
Ala	Phe	Met	Leu	Ser	Cys	Asn	Phe	Pro	Arg	Arg	Pro	Asp	Ser	Gly	Asp
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Val	Thr	Val	Met	Asp	Leu	His	Ser	Gly	Gly	Val	Ala	His	Phe	His	Cys
					180					185					190
His	Leu	Gly	Tyr	Glu	Leu	Gln	Gly	Ala	Lys	Met	Leu	Thr	Cys	Ile	Asn
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Ala	Ser	Lys	Pro	His	Trp	Ser	Ser	Gln	Glu	Pro	Ile	Cys	Ser	Ala	Pro
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Cys	Gly	Gly	Ala	Val	His	Asn	Ala	Thr	Ile	Gly	Arg	Val	Leu	Ser	Pro
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Ser	Tyr	Pro	Glu	Asn	Thr	Asn	Gly	Ser	Gln	Phe	Cys	Ile	Trp	Thr	Ile
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Glu	Ala	Pro	Glu	Gly	Gln	Lys	Leu	His	Leu	His	Phe	Glu	Arg	Leu	Leu
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Leu	His	Asp	Lys	Asp	Arg	Met	Thr	Val	His	Ser	Gly	Gln	Thr	Asn	Lys
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Ser	Ala	Leu	Leu	Tyr	Asp	Ser	Leu	Gln	Thr	Glu	Ser	Val	Pro	Phe	Glu
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Gly	Leu	Leu	Ser	Glu	Gly	Asn	Thr	Ile	Arg	Ile	Glu	Phe	Thr	Ser	Asp
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Gln	Ala	Arg	Ala	Ala	Ser	Thr	Phe	Asn	Ile	Arg	Phe	Glu	Ala	Phe	Glu
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Lys	Gly	His	Cys	Tyr	Glu	Pro	Tyr	Ile	Gln	Asn	Gly	Asn	Phe	Thr	Thr
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Pro	Gly	His	Ser	Leu	Glu	Gln	Gly	Pro	Ala	Ile	Ile	Glu	Cys	Ile	Asn
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Trp	Pro	Glu	Pro	Tyr	Val	Glu	Gly	Glu	Asp	Cys	Ile	Trp	Lys	Ile	His
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Val	Gly	Glu	Glu	Lys	Arg	Ile	Phe	Leu	Asp	Ile	Gln	Phe	Leu	Asn	Leu
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Pro	Gly	Phe	Val	Leu	Glu	Gly	Ser	Ser	Leu	Leu	Thr	Cys	Tyr	Ser	Arg					
				610					615					620						
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Gln	Ile	Leu	Tyr	Lys	Arg	Leu	Tyr	Leu	Pro	Gly	Glu	Ser	Leu	Thr	Phe					
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Met	Cys	Tyr	Glu	Gly	Phe	Glu	Leu	Met	Gly	Glu	Val	Thr	Ile	Arg	Cys					
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				690					695					700						
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Pro	Tyr	Ser	Gln	Ile	Thr	Val	Glu	Thr	Glu	Phe	Asp	Asn	Pro	Ile	Tyr					
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<212> DNA
<213> Homo sapiens
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480
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&lt;210&gt; 4980

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4980

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 Leu Arg Thr Leu Gly Ser Ser Gly Ser Glu Ser Ser Thr Pro Glu Asn  
 35 40 45  
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys  
 50 55 60  
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr  
 65 70 75 80  
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val  
 85 90 95  
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala  
 100 105 110  
 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln  
 115 120 125  
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu  
 130 135 140  
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 145 150 155 160  
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys  
 165 170 175  
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser  
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 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly  
 195 200 205  
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro  
 210 215 220  
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys  
 225 230 235 240  
 Ser Leu Thr Ser Leu Lys Ser Asn Asp Tyr Leu Ala Ser Pro Thr Thr  
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&lt;210&gt; 4981

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4981

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&lt;210&gt; 4982



<211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 4982  
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 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Ser  
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 Ser Trp Asp Tyr Arg Cys Ser Pro Pro His Pro Ala Asn Phe Cys Ile  
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<210> 4983  
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 <212> DNA  
 <213> Homo sapiens

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<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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Gly	Ser	Phe	Leu	Ala	Arg	Ala	Lys	Phe	Ile	Pro	Leu	Ile	Thr	Val	Lys
		35					40					45			
Ser	Cys	Leu	Asp	Leu	Leu	Val	Asn	Trp	Leu	His	Ile	Tyr	Leu	Asn	Asn
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Cys	Thr	Asn	Pro	Leu	Asp	Thr	Phe	Phe	Pro	Phe	Asp	Pro	Cys	Val	Leu
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	195						200				205				
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	210					215					220				
Ile	Val	Glu	Asp	Glu	Asp	Asp	Asp	Phe	Leu	Lys	Gly	Glu	Ile	Pro	Gln
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<211> 5695  
<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 4986

&lt;211&gt; 1239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4986

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Pro	Arg	Pro	Leu	Arg	Pro	Gly	Val	Thr	Leu	Pro	Pro	Gly	Ala	Leu	Thr
			20					25					30		
Met	Asn	Thr	Lys	Asp	Thr	Thr	Glu	Val	Ala	Glu	Asn	Ser	His	His	Leu
			35				40					45			
Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
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Leu	Leu	Pro	Pro	Glu	Arg	Leu	Arg	Trp	Asn	Thr	Asn	Glu	Glu	Ile	Ala
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Ser	Tyr	Leu	Ile	Thr	Phe	Glu	Lys	His	Asp	Glu	Trp	Leu	Ser	Cys	Ala

4161

		515					520					525			
Pro	Val	Gly	Ala	Ser	Glu	Leu	Glu	Pro	Phe	Ser	Leu	Ser	Ser	Phe	Pro
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Ala	Val	Pro	Ala	Ser	Leu	Val	Gln	Pro	Gly	Val	Leu	Arg	Cys	Tyr	Cys
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Pro	Ala	His	Glu	Val	Gly	Leu	Val	Ser	Leu	Gln	Val	Ala	Gly	Arg	Glu
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Gln	Trp	Arg	Ser	Val	Glu	Thr	Gly	Ser	Leu	Asp	Leu	Glu	Gln	Glu	Val
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785					790					795					800
Cys	Ala	Leu	Gly	His	Leu	Glu	Ala	Ala	Val	Leu	Leu	Phe	Arg	Trp	Asn
				805					810					815	
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			820					825					830		
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	850					855					860				
Pro	Ser	Ser	Ser	Pro	Asp	Thr	Gly	Leu	Ser	Ser	Val	Ser	Ser	Pro	Ser
865															



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    965                                      970                                      975  
 Ile Ser Leu Ala Lys Gln Ile Ile Glu Ala Thr Pro Glu Arg Ile Lys  
    980                                      985                                      990  
 Arg Glu Asp Phe Val Gly Leu Pro Glu Ala Gly Ala Ser Met Arg Glu  
    995                                      1000                                      1005  
 Arg Thr Gly Ala Val Gly Leu Ser Glu Thr Met Ser Trp Leu Ala Ser  
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 Tyr Leu Glu Asn Val Asp His Phe Pro Ser Ser Thr Pro Pro Ser Glu  
 1025                                      1030                                      1035                                      1040  
 Leu Pro Phe Glu Arg Gly Arg Leu Ala Val Pro Ser Ala Pro Ser Trp  
    1045                                      1050                                      1055  
 Ala Glu Phe Leu Ser Ala Ser Thr Ser Gly Lys Met Glu Ser Asp Phe  
    1060                                      1065                                      1070  
 Ala Leu Leu Thr Leu Ser Asp His Glu Gln Arg Glu Leu Tyr Glu Ala  
    1075                                      1080                                      1085  
 Ala Arg Val Ile Gln Thr Ala Phe Arg Lys Tyr Lys Gly Arg Arg Leu  
    1090                                      1095                                      1100  
 Lys Glu Gln Gln Glu Val Ala Ala Val Ile Gln Arg Cys Tyr Arg  
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 Lys Tyr Lys Gln Leu Thr Trp Ile Ala Leu Lys Phe Ala Leu Tyr Lys  
    1125                                      1130                                      1135  
 Lys Met Thr Gln Ala Ala Ile Leu Ile Gln Ser Lys Phe Arg Ser Tyr  
    1140                                      1145                                      1150  
 Tyr Glu Gln Lys Arg Phe Gln Gln Ser Arg Arg Ala Ala Val Leu Ile  
    1155                                      1160                                      1165  
 Gln Gln His Tyr Arg Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg  
    1170                                      1175                                      1180  
 Thr Ser Ala Thr Leu Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys  
 1185                                      1190                                      1195                                      1200  
 Lys Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys  
    1205                                      1210                                      1215  
 Arg His Arg Met Arg Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu  
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 Pro Gln Pro Gly Leu Ala Thr  
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&lt;210&gt; 4987

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4987

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 240

actttttctc tgagtcacaa gaagacgaat atacgctgca atgacgcagt gaggggaagaa  
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<210> 4988

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4988

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Ser	Ser	Ser	Cys	Asp	Ser	Glu	Lys	Lys	Ser	Leu	Trp	Leu	Phe	Ala	Ala
			20					25					30		
Phe	Pro	Leu	Cys	Phe	Leu	Gly	Thr	Ala	Phe	Pro	Gln	Gly	Glu	Gln	Arg
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Pro	Leu	Glu	Ala	Lys	Gly	Leu	Ala	Thr	Gln	Gly	Ala	Ser	Leu	Pro	Leu
	50					55				60					
Leu	Pro	Thr	Val	Thr	Cys	Val	Ser	Ile	Lys	Ser	Trp	Lys	Met	Glu	Cys
65					70				75					80	
Pro	His	Gln	Gly	Asp	Gly	Val	Thr	Thr	Glu	Ala	Gly	Ser	Glu	Leu	Pro
			85					90						95	
Gln	Leu	Leu	Gln	Ala	Pro	Trp	Pro	Arg							
			100					105							

<210> 4989

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4989

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240  
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 1723

&lt;210&gt; 4990

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4990

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Lys	Lys	Arg	Phe	Gln	Gln	Ala	Thr	Pro	Gly	Ser	Ala	Pro	Val	Ser	Arg
			20					25					30		
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
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Arg	Thr	Ser	Ile	Ser	Gly										
50															

&lt;210&gt; 4991

&lt;211&gt; 828

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4991

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&lt;210&gt; 4992

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4992

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 Leu Val Asn Arg Ile Tyr Asn Leu Gln Glu Ala Arg Gln Ala Glu  
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 Glu Leu Arg Asp Lys Tyr Leu Glu Lys Glu Asp Leu Glu Leu Lys  
 35 40 45  
 Cys Ser Thr Leu Gly Lys Asp Cys Glu Met Tyr Lys His Arg Met Asn  
 50 55 60  
 Thr Val Met Leu Gln  
 65

&lt;210&gt; 4993

&lt;211&gt; 837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4993

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<211> 133

<212> PRT

<213> Homo sapiens

<400> 4994

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			20					25				30			
Glu	Glu	Asp	Ser	Asp	Gly	Glu	Leu	Asn	Thr	Trp	Glu	Leu	Ser	Glu	Gly
		35				40					45				
Thr	Asn	Cys	Pro	Pro	Lys	Glu	Gln	Pro	Gly	Asp	Leu	Phe	Asn	Glu	Asp
		50			55					60					
Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
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Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
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Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
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<211> 1595

<212> DNA

<213> Homo sapiens

<400> 4995

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<211> 217

<212> PRT

<213> Homo sapiens

<400> 4996

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	50					55				60					
Leu	Thr	Asn	Val	Ala	Ala	Thr	Ser	Gly	Asp	Gly	Tyr	Arg	Gly	Gln	Thr
65					70					75					80
Ser	Pro	His	Thr	Pro	Asn	Glu	Lys	Phe	Tyr	Gly	Val	Thr	Val	Phe	Lys
				85					90					95	
Ala	Leu	Lys	Leu	Gly	Gln	Glu	Gly	Lys	Val	Pro	Leu	Gln	Ser	Ala	His
			100					105					110		
Leu	Tyr	Tyr	Asn	Val	Thr	Glu	Lys	Val	Arg	Arg	Ile	Met	Glu	Ser	Tyr
		115					120					125			
Phe	Arg	Leu	Asp	Thr	Pro	Leu	Tyr	Phe	Ser	Tyr	Ser	His	Leu	Val	Cys
	130					135				140					
Arg	Thr	Ala	Ile	Glu	Glu	Val	Gln	Ala	Glu	Arg	Lys	Asp	Asp	Ser	His
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Pro	Val	His	Val	Asp	Asn	Cys	Ile	Leu	Asn	Ala	Glu	Thr	Leu	Val	Cys
				165					170					175	
Val	Lys	Glu	Pro	Pro	Ala	Tyr	Thr	Phe	Arg	Asp	Tyr	Ser	Ala	Ile	Leu
			180					185					190		
Tyr	Leu	Asn	Gly	Asp	Phe	Asp	Gly	Gly	Asn	Phe	Tyr	Phe	Thr	Glu	Leu
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<210> 4997

<211> 1888

<212> DNA

<213> Homo sapiens

<400> 4997

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 1888

<210> 4998

<211> 464

<212> PRT

<213> Homo sapiens

<400> 4998

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Thr	His	Gly	Thr	Leu	Gly	Ser	Gly	Arg	Ser	Ser	Asp	Lys	Gly	Pro	Ser
		20						25					30		
Trp	Ser	Ser	Arg	Ser	Leu	Gly	Ala	Arg	Cys	Arg	Asn	Ser	Ile	Ala	Ser
		35					40					45			
Cys	Pro	Glu	Glu	Gln	Pro	His	Val	Gly	Asn	Tyr	Arg	Leu	Leu	Arg	Thr
	50					55					60				
Ile	Gly	Lys	Gly	Asn	Phe	Ala	Lys	Val	Lys	Leu	Ala	Arg	His	Ile	Leu
65					70					75				80	
Thr	Gly	Arg	Glu	Val	Ala	Ile	Lys	Ile	Ile	Asp	Lys	Thr	Gln	Leu	Asn
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Lys	Thr	Leu	Tyr	Leu	Val	Met	Glu	Tyr	Ala	Ser	Ala	Gly	Glu	Pro	Pro
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Thr	Leu	Ser	Ala	Leu	Pro	Leu	Cys	His	Leu	Pro	Leu	Pro	Leu	His	Leu
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Phe	Gln	Gly	Lys	Tyr	Asp	Gly	Pro	Glu	Val	Asp	Ile	Trp	Ser	Leu	
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 35 40 45  
 Gly Ala Glu Asp Lys Met Thr Ser Gly Asp Val Leu Ser Asn Arg Lys  
 50 55 60  
 Met Phe Tyr Leu Leu Lys Thr Ala Phe Pro Ser Val Gln Ile Asn Thr  
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 Pro Ala Glu Ser Val Thr Val Trp Ile Asp Pro Leu Asp Ala Thr Gln  
 115 120 125  
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 Ala Val Asn Gly Lys Pro Met Leu Gly Val Ile His Lys Pro Phe Ser  
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 Glu Tyr Thr Ala Trp Ala Met Val Asp Gly Gly Ser Asn Val Lys Ala  
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&lt;210&gt; 5002

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5002

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		20						25					30		
Ile	Val	Leu	Ile	Val	Glu	Gly	Thr	Glu	Phe	Pro	Cys	His	Lys	Met	Val
		35				40						45			
Leu	Ala	Thr	Cys	Ser	Ser	Tyr	Phe	Arg	Ala	Met	Phe	Met	Ser	Gly	Leu
	50					55					60				
Ser	Glu	Ser	Lys	Gln	Thr	His	Val	His	Leu	Arg	Asn	Val	Asp	Ala	Ala
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Thr	Leu	Gln	Ile	Ile	Ile	Thr	Tyr	Ala	Tyr	Thr	Gly	Asn	Leu	Ala	Met
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Asn	Asp	Ser	Thr	Val	Glu	Gln	Leu	Tyr	Glu	Thr	Ala	Cys	Phe	Leu	Gln
			100					105					110		
Val	Glu	Asp	Val	Leu	Gln	Arg	Cys	Arg	Glu	Tyr	Leu	Ile	Lys	Lys	Ile

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Cys Glu Glu Leu Lys Gln Ser Ala Lys Arg Met Val Glu His Lys Phe		
145	150	155
Thr Ala Val Tyr His Gln Asp Ala Phe Met Gln Leu Leu His Asp Leu		
165	170	175
Leu Ile Asp Ile Leu Ser Ser Asp Asn Leu Asn Val Glu Lys Glu Glu		
180	185	190
Thr Val Arg Glu Ala Ala Met Leu Trp Leu Glu Tyr Asn Thr Glu Ser		
195	200	205
Arg Ser Gln Tyr Leu Ser Ser Val Leu Ser Gln Ile Arg Ile Asp Ala		
210	215	220
Leu Ser Glu Val Thr Gln Arg Ala Trp Phe Gln Gly Leu Pro Pro Asn		
225	230	235
Asp Lys Ser Val Val Val Gln Gly Leu Tyr Lys Ser Met Pro Lys Phe		
245	250	255
Phe Lys Pro Arg Leu Gly Met Thr Lys Glu Glu Met Met Ile Phe Ile		
260	265	270
Glu Ala Ser Ser Glu Asn Pro Cys Ser Leu Tyr Ser Ser Val Cys Tyr		
275	280	285
Ser Pro Gln Ala Glu Lys Val Tyr Lys Leu Cys Ser Pro Pro Ala Asp		
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<210> 5003  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5004

<211> 642  
 <212> PRT  
 <213> Homo sapiens

<400> 5004

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 35           40           45
Leu Gln Arg Ser Leu Asn Glu Leu Asp Gly Leu Lys Ile Pro Ser Glu
 50           55           60
Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg
 65           70           75           80
Ile Thr Ser Asn Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu Leu
 85           90           95
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100           105           110
Glu Gln Arg Val His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys Gln
115           120           125
His Asn Ser Leu Glu Arg Ala Phe His Ser Ala Pro Gly Arg Pro Ala
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145           150           155           160
Glu Asp Ser Glu Glu Asp Glu Asp Thr Glu Tyr Phe Asp Ala Met Glu
165           170           175
Asp Ser Thr Ser Phe Ile Thr Val Ile Thr Glu Ala Lys Glu Asp Ser
180           185           190
Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser
195           200           205
Ala Asp Asn Val Leu Asp Gly Ala Ser Leu Val Pro Lys Gly Ser Ser
210           215           220
Lys Val Lys Arg Arg Val Arg Ile Pro Asn Lys Pro Asn Tyr Ser Leu
225           230           235           240
Asn Leu Trp Ser Ile Met Lys Asn Cys Ile Gly Arg Glu Leu Ser Arg
245           250           255
Ile Pro Met Pro Val Asn Phe Asn Glu Pro Leu Ser Met Leu Gln Arg
260           265           270
Leu Thr Glu Asp Leu Glu Tyr His His Leu Leu Asp Lys Ala Val His
275           280           285
Cys Thr Ser Ser Val Glu Gln Met Cys Leu Val Ala Ala Phe Ser Val
290           295           300
Ser Ser Tyr Ser Thr Thr Val His Arg Ile Ala Lys Pro Phe Asn Pro
305           310           315           320
Met Leu Gly Glu Thr Phe Glu Leu Asp Arg Leu Asp Asp Met Gly Leu
325           330           335
Arg Ser Leu Cys Glu Gln Val Ser His His Pro Pro Ser Ala Ala His
340           345           350
Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr Ile
355           360           365
Ser Ser Lys Phe Arg Gly Lys Tyr Ile Ser Ile Met Pro Leu Gly Ala
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Ile His Leu Glu Phe Gln Ala Ser Gly Asn His Tyr Val Trp Arg Lys

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Gln	Leu	Lys	Phe	Leu	Pro	Tyr	Ser	Tyr	Phe	Ser	Lys	Glu	Ala	Ala	Arg	
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Lys	Val	Thr	Gly	Val	Val	Ser	Asp	Ser	Gln	Gly	Lys	Ala	His	Tyr	Val	
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Ser	Ser	Pro	Ser	Ser	Pro	Ser	Ser	Asp	Gly	Lys	Gln	Lys	Thr	Val	Tyr	
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Gln	Thr	Leu	Ser	Ala	Lys	Leu	Leu	Trp	Lys	Lys	Tyr	Pro	Leu	Pro	Glu	
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Asn	Ala	Glu	Asn	Met	Tyr	Tyr	Phe	Ser	Glu	Leu	Ala	Leu	Thr	Leu	Asn	
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Glu	His	Glu	Glu	Gly	Val	Ala	Pro	Thr	Asp	Ser	Arg	Leu	Arg	Pro	Asp	
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Gln	Arg	Leu	Met	Glu	Lys	Gly	Arg	Trp	Asp	Glu	Ala	Asn	Thr	Glu	Lys	
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Arg	Glu	Gly	Arg	Pro	Gly	Gly	Glu	Glu	Arg	Gly	Ala	Arg	Val	Gly	Val	
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Pro	Gln	Gly	Arg	Ile	Pro	Gly	Glu	Gln	Ala	Thr	Ser	Pro	Pro	Thr	Ser	
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5006

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5006

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Arg	Gly	Ser	Gly	His	Val	Thr	Val	Phe	Gly	Leu	Ser	Asn	Lys	Phe	Glu
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Ser	Glu	Phe	Pro	Ser	Ser	Leu	Thr	Gly	Lys	Val	Ala	Pro	Glu	Glu	Phe
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Lys	Ala	Ser	Ile	Asn	Arg	Val	Asn	Ser	Cys	Leu	Lys	Lys	Asn	Leu	Pro
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Ile	Phe	Arg	Pro	Asp											
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&lt;210&gt; 5007

&lt;211&gt; 2165

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5007

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<211> 487

<212> PRT

<213> Homo sapiens

<400> 5008

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Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
		35					40				45				
Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50					55				60					
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
65				70					75					80	
Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
			85					90					95		
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
			100					105					110		
Glu	Phe	Leu	Trp	Lys	Ser	Glu	Arg	Tyr	Glu	Xaa	Ser	Leu	Leu	Met	Ser
		115					120					125			
Thr	Ser	Pro	Ser	Leu	Leu	Ser	Leu	Arg	Asn	Asn	Glu	Thr	Ser	Lys	Asn
	130					135					140				
Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
145					150					155				160	
Val	Val	Asn	Ser	Glu	Ala	Ala	Val	Trp	Ser	Leu	Leu	Ser	Cys	Gly	Ile

165 170 175  
 Tyr Gly Gln Gly Phe Phe Glu Glu Glu Glu Gly Lys Glu Tyr Ile Tyr  
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 Lys Glu Pro Lys Leu Thr Gly Leu Ser Glu Ile Ser Gln Arg Leu Leu  
 195 200 205  
 Lys Leu Tyr Ala Asp Lys Phe Gly Ala Asp Asn Val Lys Ile Ile Gln  
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 Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr  
 225 230 235 240  
 Ile Gln Val Thr Tyr Val Thr Pro Phe Phe Glu Glu Lys Glu Ile Glu  
 245 250 255  
 Asp Arg Lys Thr Asp Phe Glu Met His His Asn Ile Asn Arg Phe Val  
 260 265 270  
 Phe Glu Thr Pro Phe Thr Leu Ser Gly Lys Lys His Gly Gly Val Ala  
 275 280 285  
 Glu Gln Cys Lys Arg Arg Thr Ile Leu Thr Thr Ser His Leu Phe Pro  
 290 295 300  
 Tyr Val Lys Lys Arg Ile Gln Val Ile Ser Gln Ser Ser Thr Glu Leu  
 305 310 315 320  
 Asn Pro Ile Glu Val Ala Ile Asp Glu Met Ser Lys Lys Val Ser Glu  
 325 330 335  
 Leu Asn Gln Leu Cys Thr Met Glu Glu Val Asp Met Ile Arg Leu Gln  
 340 345 350  
 Leu Lys Leu Gln Gly Ser Val Ser Val Lys Val Asn Ala Gly Pro Met  
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 Ala Tyr Ala Arg Ala Phe Leu Glu Glu Thr Asn Ala Lys Lys Tyr Pro  
 370 375 380  
 Asp Asn Gln Val Lys Leu Leu Lys Glu Ile Phe Arg Gln Phe Ala Asp  
 385 390 395 400  
 Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp  
 405 410 415  
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu  
 420 425 430  
 Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys  
 435 440 445  
 Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val  
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 Ser Lys Ser Asp Tyr Gly Gln Gly Arg Pro Val Lys Ala Arg Ser Gly  
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 Pro Asn Leu His Ser Ser Asn  
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&lt;210&gt; 5009

&lt;211&gt; 426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5009

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60

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120

ccttgagat gtcagcaaag catggcgagg agagcagctt ctctctgtc ccaaaggga

180

gcagaagatt aggagctaga tcaagcaaga ctgggggctg caggtgtagg aagtgaatca  
 240  
 agatgacttc aaaagagaga ataaaaagtg ggcttatgaa gaattggtgg actcttcctg  
 300  
 gcaaattggg caagaaaagc agagatggtg acaggaagaa aaagcaagca tagctgtcca  
 360  
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 420  
 aagcat  
 426

<210> 5010  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 5010  
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 20 25 30  
 Asn Leu Pro Gly Arg Val His Gln Phe Phe Ile Ser Pro Leu Phe Ile  
 35 40 45  
 Leu Ser Phe Glu Val Ile Leu Ile His Phe Leu His Leu Gln Pro Pro  
 50 55 60  
 Val Leu Leu Asp Leu Ala Pro Asn Leu Leu Leu Pro Phe Gly Thr Glu  
 65 70 75 80  
 Glu Lys Leu Leu Ser Ser Pro Cys Phe Ala Asp Ile Ser Lys Gly Lys  
 85 90 95  
 Glu Ser Thr Gly Pro Phe Ile Ser Cys Pro Arg Pro Ser Gln Gly Ala  
 100 105 110  
 Val Ile Met Pro Lys Pro Tyr  
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<210> 5011  
 <211> 3431  
 <212> DNA  
 <213> Homo sapiens

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 120  
 atagtcaact gcgtggaaga gaagccaaaa gaatgcaatg gtgtaaagat tccagttgat  
 180  
 gccagtaaac ctaatccaaa tgatgtggag ttgataatc tgtatttggga tatgaatgga  
 240  
 atcatccatc cctgtactca tcctgaagac aaaccagcac caaaaaatga agatgaaatg  
 300  
 atggttgcaa tttttgagta cattgacaga cttttcagta ttgtaagacc aagaagactt  
 360  
 ctctacatgg caatagatgg agtggcacca cgtgtaaaaa tgaaccagca gcgttcaagg  
 420



aggttcaggg ccatcaaaga aggaatggaa gcagcagtcg agaagcagcg agtcagggaa  
480  
gaaatattgg caaaagggtg ctttcttcct ccagaagaaa taaaagaaag atttgacagc  
540  
aactgtatta caccaggaac tgaattcatg gacaatcttg ctaaatgcct tcgctattac  
600  
atagctgac gtttaaataa tgacctggg tggaaaaatt tgacagttat tttatctgat  
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gctagtgtc ctggtgaagg agaacataaa atcatggatt acattagaag gcaaagagcc  
720  
cagcctaacc atgacccaaa tactcatcat tgtttatgtg gagcagatgc tgatctcatt  
780  
atgcttggcc ttgccacaca tgaaccgaac tttaccatta ttagagaaga attcaaacca  
840  
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900  
ggtttgcaa gagaaaagaa gggaaagcat gatgaacttg ccgatagtct tccttgtgca  
960  
gaaggagagt ttatcttcct tcggcttaat gttcttcgtg agtatttggg aagagaactc  
1020  
acaatggcca gcctaccatt cacatttgat gttgagagga gcattgatga ctggggtttc  
1080  
atgtgcttct ttgtgggaaa tgacttctc ctcatttgc catcgttaga gattagggaa  
1140  
aatgcaattg accgtttggt taacatatac aaaaatgtgg tacacaaaac tgggggttac  
1200  
cttacagaaa gtggttatgt caatctgcaa agagtacaga tgatcatggt agcagttggt  
1260  
gaagttgagg atagcatttt taaaaagaga aaggatgatg aggacagttt tagaagacga  
1320  
cagaaagaaa aaagaaagag aatgaagaga gatcaaccag ctttcaactcc tagtgggaata  
1380  
ttaactctc atgccttggg ttcaagaaat tcaccagggt ctcaagtagc cagtaatccg  
1440  
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1680  
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1740  
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1920  
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1980  
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2040

ctacgagctg ccctagaaga ggtataccca gacctcactc cagaagagac cagaagaaac  
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2160  
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2280  
cctgttctta tgttaaggga tctgacacag aacactgtag tcagtattaa ttttaaagac  
2340  
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2400  
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2520  
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2580  
cctgtgactt accagggaaa cttatacagg ccgcttttga gaggacaagc ccagattcca  
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2820  
tatccacca gacgagatga tcgtggaggg agacagggat atccagaga aggaaggaaa  
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2940  
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3431

&lt;210&gt; 5012

&lt;211&gt; 950

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5012

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Ile Ile Val Asn Cys Val Glu Glu Lys Pro Lys Glu Cys Asn Gly Val
      20           25           30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
      35           40           45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
      50           55           60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
65           70           75           80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
      85           90           95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
      100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
      115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
      130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
      165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
      180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
      195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
      210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
      245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
      260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
      275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
      290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
      325          330          335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
      340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
      355          360          365
Asn Val Val His Lys Thr Gly Tyr Leu Thr Glu Ser Gly Tyr Val
      370          375          380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
385          390          395          400
Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
      405          410          415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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[illegible]

850                                      855                                      860  
 Pro Gln Asp Ser Trp Arg Gly Pro Pro Pro Leu Phe Gln Gln Gln Arg  
 865                                      870                                      875                                      880  
 Phe Asp Arg Gly Val Gly Ala Glu Pro Leu Leu Pro Trp Asn Arg Met  
                                     885                                      890                                      895  
 Leu Gln Thr Gln Asn Ala Ala Phe Gln Pro Asn Gln Tyr Gln Met Leu  
                                     900                                      905                                      910  
 Ala Gly Pro Gly Gly Tyr Pro Pro Arg Arg Asp Asp Arg Gly Gly Arg  
                                     915                                      920                                      925  
 Gln Gly Tyr Pro Arg Glu Gly Arg Lys Tyr Pro Leu Pro Pro Pro Ser  
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 Gly Arg Tyr Asn Trp Asn  
 945                                      950

&lt;210&gt; 5013

&lt;211&gt; 2480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5013

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 120  
 tgccttctgc gcgcctggga tcccgagacc tgcctagggt ctgtgcgctc ccgcccaggc  
 180  
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 300  
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2280  
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2340  
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2400  
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2480

&lt;210&gt; 5014

&lt;211&gt; 675

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5014

```

Arg Gly Arg Leu Gly Thr Gln Gly Asp His Gly Ala Ala Met Gly Thr
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Ala Leu Val Tyr His Glu Asp Met Thr Ala Thr Arg Leu Leu Trp Asp
 20           25           30
Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu
 35           40           45
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
 50           55           60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
 65           70           75           80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
 85           90           95
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
100           105           110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
115           120           125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
130           135           140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
145           150           155           160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
165           170           175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
180           185           190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
195           200           205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
210           215           220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
225           230           235           240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
245           250           255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
260           265           270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
275           280           285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
290           295           300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
305           310           315           320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
325           330           335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
340           345           350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
355           360           365
Pro His Trp Lys Ser Leu Gln Gln Asp Val Thr Ala Val Pro Met
370           375           380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
385           390           395           400
Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu

```

												405						410						415		
Asp	Gln	Pro	Cys	Leu	Cys	Pro	Ala	Pro	Ser	Val	Arg	Thr	Ala	Val	Ala											
				420						425						430										
Leu	Thr	Thr	Pro	Asp	Ile	Thr	Leu	Val	Leu	Pro	Pro	Asp	Val	Ile	Gln											
				435						440						445										
Gln	Glu	Ala	Ser	Ala	Leu	Arg	Glu	Glu	Thr	Glu	Ala	Trp	Ala	Arg	Pro											
				450						455						460										
His	Glu	Ser	Leu	Ala	Arg	Glu	Glu	Ala	Leu	Thr	Ala	Leu	Gly	Lys	Leu											
				465						470						475										
Leu	Tyr	Leu	Leu	Asp	Gly	Met	Leu	Asp	Gly	Gln	Val	Asn	Ser	Gly	Ile											
				485						490						495										
Ala	Ala	Thr	Pro	Ala	Ser	Ala	Ala	Ala	Ala	Thr	Leu	Asp	Val	Ala	Val											
				500						505						510										
Arg	Arg	Gly	Leu	Ser	His	Gly	Ala	Gln	Arg	Leu	Leu	Cys	Val	Ala	Leu											
				515						520						525										
Gly	Gln	Leu	Asp	Arg	Pro	Pro	Asp	Leu	Ala	His	Asp	Gly	Arg	Ser	Leu											
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Trp	Leu	Asn	Ile	Arg	Gly	Lys	Glu	Ala	Ala	Ala	Leu	Ser	Met	Phe	His											
				545						550						555										
Val	Ser	Thr	Pro	Leu	Pro	Val	Met	Thr	Gly	Gly	Phe	Leu	Ser	Cys	Ile											
				565						570						575										
Leu	Gly	Leu	Val	Leu	Pro	Leu	Ala	Tyr	Gly	Phe	Gln	Pro	Asp	Leu	Val											
				580						585						590										
Leu	Val	Ala	Leu	Gly	Pro	Gly	His	Gly	Leu	Gln	Gly	Pro	His	Ala	Ala											
				595						600						605										
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Leu	Leu	Glu	Glu	Val	Ser	Trp	Ala	Gly	Trp	Arg	Cys	Cys	Gly	Val	Gly											
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Arg	Gly	Glu	Gly	Pro	Val	Thr	Ala	Ser	Val	Phe	Ala	Pro	Gly	Pro	Glu											
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Leu	His	Thr	Pro	Ala	Ser	Arg	Asp	Pro	Gly	Pro	Gly	Ala	Glu	Trp	Arg											
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<211> 1360

<212> DNA

<213> Homo sapiens

<400> 5015

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&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5016

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			20					25					30		
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	50					55				60					
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65					70				75					80	
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Tyr	Ala	Leu	Leu	Asp	Leu	Asp	Ser	Leu	Lys	Lys	Lys	Leu	Phe	Leu	Thr	
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<212> DNA
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<212> PRT

<213> Homo sapiens

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			20				25						30		
Leu	Pro	Ala	Leu	Pro	Ser	Asp	Ala	Gly	Val	Gly	Trp	Gly	Ala	Glu	Gly
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<211> 2766

<212> DNA

<213> Homo sapiens

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 100 105 110  
 Ala Leu Lys Leu Val Ser Asp Ser Leu Ser Glu His Glu Lys Asn Lys  
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 Lys Gly Val Leu Arg Val Gly Val Phe Ala Lys Gly Leu Leu Leu Arg  
 145 150 155 160  
 Gly Asp Arg Asn Val Asn Leu Val Leu Leu Cys Ser Glu Lys Pro Ser  
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 Lys Thr Leu Leu Ser Arg Ile Ala Glu Asn Leu Pro Lys Gln Leu Ala  
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 Phe Ile Ser Pro Glu Lys Tyr Asp Ile Lys Cys Ala Val Ser Glu Ala  
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Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser		
325	330	335
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Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp		
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370	375	380
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385	390	395
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Asp Ser Asp Gly Val		
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Phe		

&lt;210&gt; 5021

&lt;211&gt; 494

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5021

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&lt;210&gt; 5022

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5022

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Asp Tyr Lys	Asn Tyr Leu Ala Leu Ile Asn His Arg	Pro His Val Lys	
	35	40	45
Gly Asn Ser	Ser Cys Tyr Gly Val Leu Pro Thr Glu Glu Pro	Val Tyr	
	50	55	60
Asn Trp Arg	Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe	Glu Gly	
65		70	75
Asn Ile His	Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln Leu	Val Gln	
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&lt;211&gt; 2596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5025

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<211> 188

<212> PRT

<213> Homo sapiens

<400> 5030

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 <212> PRT  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

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 Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala  
 65 70 75 80  
 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu  
 85 90 95  
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu  
 100 105 110  
 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser  
 115 120 125  
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu  
 130 135 140  
 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp  
 145 150 155 160  
 Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln  
 165 170 175  
 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe  
 180 185 190  
 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro  
 195 200 205  
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp  
 210 215 220  
 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly  
 225 230 235 240  
 Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala  
 245 250 255  
 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg  
 260 265 270  
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro  
 275 280 285  
 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg  
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 Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly  
 305 310 315 320  
 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His  
 325 330 335  
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 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser  
 355 360 365  
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln  
 370 375 380  
 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala  
 385 390 395 400  
 Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr  
 405 410 415  
 Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

420 425 430  
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 Gly Ala Arg Asn Pro Ala Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser  
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 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp  
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 Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr  
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 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro  
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 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5036

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

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			20					25					30		
Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
			35				40					45			
Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
			50				55				60				
Gln	Thr	Glu	Val	Leu	Leu	Gln	Pro	Asn	Pro	Ser	Ala	Arg	Val	Glu	Glu

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Phe	Leu	Tyr	Glu	Lys	Leu	Asp	Arg	Lys	Val	Pro	Ser	Arg	Val	Thr	Asn
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Pro	Thr	Thr	Pro	Tyr	Gly	Lys	Thr	Leu	Ile	Lys	Val	Ala	Glu	Ala	Glu
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Lys	Gln	Leu	Gly	Ala	Ala	Glu	Arg	Asp	Phe	Ile	His	Thr	Ala	Ser	Ile
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Ser	Phe	Leu	Thr	Pro	Leu	Arg	Asn	Phe	Leu	Glu	Gly	Asp	Trp	Lys	Thr
145					150					155					160
Ile	Ser	Lys	Glu	Ser	Arg	Leu	Leu	Gln	Asn	Arg	Arg	Leu	Asp	Leu	Asp
				165					170					175	
Ala	Cys	Lys	Ala	Arg	Leu	Lys	Lys	Ala	Lys	Ala	Ala	Glu	Ala	Lys	Ala
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Thr	Leu	Trp	Asn	Asp	Glu	Val	Asp	Lys	Ala	Glu	Gln	Glu	Leu	Arg	Val
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Glu	Gly	Ile	Ser	Ser	Thr	His	Val	Asn	His	Leu	Arg	Cys	Leu	His	Glu
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Phe	Val	Lys	Ser	Gln	Thr	Thr	Tyr	Tyr	Ala	Gln	Cys	Tyr	Arg	His	Met
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	275						280					285			
Ser	Pro	Thr	Thr	Ala	Ala	Ala	Thr	Met	Pro	Val	Val	Pro	Ser	Val	Ala
	290					295					300				
Ser	Leu	Ala	Pro	Pro	Gly	Glu	Ala	Ser	Leu	Cys	Leu	Glu	Glu	Val	Ala
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Pro	Pro	Ala	Ser	Gly	Thr	Arg	Lys	Ala	Arg	Val	Leu	Tyr	Asp	Tyr	Glu
			325					330						335	
Ala	Ala	Asp	Ser	Ser	Glu	Leu	Ala	Leu	Leu	Ala	Asp	Glu	Leu	Ile	Thr
		340					345					350			
Val	Tyr	Ser	Leu	Pro	Gly	Met	Asp	Pro	Asp	Trp	Leu	Ile	Gly	Glu	Arg
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Gly	Asn	Lys	Lys	Gly	Lys	Val	Pro	Val	Thr	Tyr	Leu	Glu	Leu	Leu	Ser
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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120

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<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

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His	Tyr	Gln	Thr	Asn	His	Ser	Lys	His	Tyr	Asp	Gln	Tyr	Thr	Glu	Arg
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Met	Arg	Asp	Glu	Lys	Leu	His	Glu	Leu	Lys	Lys	Gly	Leu	Arg	Lys	Tyr
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Leu	Leu	Gly	Ser	Ser	Asp	Thr	Glu	Cys	Pro	Glu	Gln	Lys	Gln	Val	Phe
				85					90					95	
Ala	Asn	Pro	Ser	Pro	Thr	Gln	Lys	Ser	Pro	Val	Gln	Pro	Val	Glu	Asp
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Leu	Ala	Gly	Asn	Leu	Trp	Glu	Lys	Leu	Arg	Glu	Lys	Ile	Arg	Ser	Phe
		115					120					125			
Val	Ala	Tyr	Ser	Ile	Ala	Ile	Asp	Glu	Ile	Thr	Asp	Ile	Asn	Asn	Thr
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Thr	Gln	Leu	Ala	Ile	Phe	Ile	Arg	Gly	Val	Asp	Glu	Asn	Phe	Asp	Val
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Ser	Glu	Glu	Leu	Leu	Asp	Thr	Val	Pro	Met	Thr	Gly	Thr	Lys	Ser	Gly
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Asn	Glu	Ile	Phe	Ser	Arg	Val	Glu	Lys	Ser	Leu	Lys	Lys	Phe	Cys	Ile
		180						185					190		
Asp	Trp	Ser	Lys	Leu	Val	Ser	Val	Ala	Ser	Thr	Gly	Thr	Pro	Ala	Met
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Val	Asp	Ala	Asn	Asn	Gly	Leu	Val	Thr	Lys	Leu	Lys	Ser	Arg	Val	Ala
		210				215					220				
Thr	Phe	Cys	Lys	Gly	Ala	Glu	Leu	Lys	Ser	Ile	Cys	Cys	Ile	Ile	His
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Pro	Glu	Ser	Leu	Cys	Ala	Gln	Lys	Leu	Lys	Met	Asp	His	Val	Met	Asp
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Val	Val	Val	Lys	Ser	Val	Asn	Trp	Ile	Cys	Ser	Arg	Gly	Leu	Asn	His
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Ser	Glu	Phe	Thr	Thr	Leu	Leu	Tyr	Glu	Leu	Asp	Ser	Gln	Tyr	Gly	Ser
		275					280					285			
Leu	Leu	Tyr	Tyr	Thr	Glu	Ile	Lys	Trp	Leu	Ser	Arg	Gly	Leu	Val	Leu

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 305 310 315 320  
 Arg Gly Lys Pro Leu Pro Gln Leu Ser Ser Ile Asp Trp Ile Arg Asp  
 325 330 335  
 Leu Ala Phe Leu Val Asp Met Thr Met His Leu Asn Ala Leu Asn Ile  
 340 345 350  
 Ser Leu Gln Gly His Ser Gln Ile Val Thr Gln Met Tyr Asp Leu Ile  
 355 360 365  
 Arg Ala Phe Leu Ala Lys Leu Cys Leu Trp Glu Thr His Leu Thr Arg  
 370 375 380  
 Asn Asn Leu Ala His Phe Pro Thr Leu Lys Leu Ala Ser Arg Asn Glu  
 385 390 395 400  
 Ser Asp Gly Leu Asn Tyr Ile Pro Lys Ile Ala Glu Leu Lys Thr Glu  
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 Phe Gln Lys Arg Leu Ser Asp Phe Lys Leu Tyr Glu Ser Glu Leu Thr  
 420 425 430  
 Leu Phe Ser Ser Pro Phe Ser Thr Lys Ile Asp Ser Val His Glu Glu  
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 Lys Tyr Asp Lys Val Gly Ile Pro Glu Phe Tyr Lys Tyr Leu Trp Gly  
 465 470 475 480  
 Ser Tyr Pro Lys Tyr Lys His His Cys Ala Lys Ile Leu Ser Met Phe  
 485 490 495  
 Gly Ser Thr Tyr Ile Cys Glu Gln Leu Phe Ser Ile Met Lys Leu Ser  
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 Lys Thr Lys Tyr Cys Ser Gln Leu Lys Asp Ser Gln Trp Asp Ser Val  
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 Leu His Ile Ala Thr  
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&lt;210&gt; 5039

&lt;211&gt; 3059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5039

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cgcgcgcgga gcgacgccgg gccagcaatg ctgcttgag cctctctggt gggggtgctg  
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 240

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 300

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 360

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 420

gccctgatct tcgagggcac agataccac tggaccttc gccagctgga tgagtactca  
 480



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&lt;210&gt; 5040

&lt;211&gt; 616

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5040

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&lt;210&gt; 5041

&lt;211&gt; 2461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5041

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&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

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&lt;210&gt; 5043

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5043

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1824

&lt;210&gt; 5044

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5044

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 Tyr Met Gly Leu Glu His Lys Ala Ala Arg Asp Glu  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5052

&lt;211&gt; 433

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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<212> DNA
<213> Homo sapiens
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<210> 5054  
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 Trp Ser Arg Gln Gly Lys Ala Gly Lys Thr His Lys Phe Ser Ala Gly  
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145

150

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&lt;210&gt; 5055

&lt;211&gt; 2520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5055

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&lt;210&gt; 5056

&lt;211&gt; 672

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5056

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Ile	Val	Cys	Lys	Arg	Ser	Tyr	Val	Cys	Leu	Thr	Ser	Leu	Arg	Arg	His



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 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile  
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 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu  
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<210> 5060  
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<400> 5060  
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&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5062

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Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
 35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
 85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
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<213> Homo sapiens

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<213> Homo sapiens

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          20           25           30
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          35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
          50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
          85           90           95
Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
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&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

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&lt;210&gt; 5066

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

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          20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
          35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
          50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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[illegible]

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<211> 179

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<213> Homo sapiens

<400> 5068

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Phe	Ser	Asn	Met	Val	Leu	Ser	Asn	Leu	Ser	Pro	Glu	Ala	Phe	Ser	His
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<211> 255

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<213> Homo sapiens

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&lt;210&gt; 5071

&lt;211&gt; 2196

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5071

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<211> 76

<212> PRT

<213> Homo sapiens

<400> 5072

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			20					25					30		
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&lt;210&gt; 5073

&lt;211&gt; 1712

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5073

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<211> 240

<212> PRT

<213> Homo sapiens

<400> 5074

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<210> 5075

<211> 444

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

<400> 5076

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	50					55					60				
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<212> DNA

<213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 Lys Lys Asn Asn Lys Arg Lys Arg Ser Lys Ser Lys Gln His Gln Gly  
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 Asn Lys Asp Ala Lys Asp Lys Val Glu Arg Pro Glu Ala Gly Pro Leu  
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 115 120 125  
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 Lys Pro Asp Glu Leu Ala Lys Lys Arg Gly Pro Asn Ile Glu Lys Ser  
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 Val Lys Asp Leu Gln Arg Cys Thr Val Ser Leu Thr Arg Tyr Arg Val  
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&lt;210&gt; 5079

&lt;211&gt; 1338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5079

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 1338

&lt;210&gt; 5080

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5080

Gly	Ala	Gly	Pro	Trp	Glu	Ala	Phe	Pro	Asp	Gly	Ile	Gly	Arg	Arg	Ser
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Arg	Arg	Ala	Arg	Leu	Pro	Gln	Tyr	Lys	Arg	Pro	Pro	Gly	Arg	Val	Gly
		20						25					30		
Gly	Gly	Asp	Ser	Gly	Arg	Arg	Asn	Met	Ala	Val	Ala	Asp	Leu	Ala	Leu
		35					40					45			
Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
	50					55					60				
Ile	Arg	Val	His	Ser	Ala	Pro	Arg	Ser	Gly	Ala	Pro	Ala	Ala	Glu	Ser
65					70					75				80	
Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

				85					90					95					
Tyr	Asp	Lys	Val	Ser	Gly	Asp	Met	Gln	Lys	Gln	Gly	Cys	Asp	Cys	Glu				
			100					105					110						
Cys	Leu	Gly	Gly	Gly	Arg	Ile	Ser	His	Gln	Ser	Gln	Asp	Lys	Lys	Ile				
		115					120					125							
His	Val	Tyr	Gly	Tyr	Ser	Met	Val	Ser	Arg	Ser	Pro	Val	Pro	Pro	Cys				
	130					135					140								
Arg	Arg	Pro	Gln	Tyr	Gln	Leu	Arg	Gly	Pro	Pro	Glu	Pro	Ala	Ala	Leu				
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Thr	Arg	Gly	Pro	Ser															
				165															

&lt;210&gt; 5081

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5081

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300

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420

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480

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540

atcagcacac gtggcaagct g  
561

&lt;210&gt; 5082

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5082

Met	Pro	Pro	Lys	Leu	Leu	Cys	Ala	Gly	Arg	Cys	Val	Gly	Gln	Asp	Gly
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Ala	Ala	Gln	Ala	Trp	His	Cys	Pro	Pro	Gly	Gln	Gly	His	Ser	Val	Trp
		20					25					30			

Asp	Ala	Val	Arg	Met	Pro	Leu	Gly	Ala	Gly	Thr	Pro	Val	Asn	Val	Gln
	35					40				45					

Arg	Arg	Glu	Asp	Ser	Ala	Thr	Glu	Gly	Ser	His	Arg	Leu	Ile	Leu	Ala
	50				55				60						

Ala	Asn	Arg	Asp	Glu	Phe	Tyr	Ser	Arg	Pro	Ser	Lys	Leu	Ala	Asp	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

65		70		75		80									
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
		85		90		95									
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
		100				105						110			

&lt;210&gt; 5083

&lt;211&gt; 1856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5083

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1260

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 1856

&lt;210&gt; 5084

&lt;211&gt; 396

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5084

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Arg	Ala	Ser	Ala	Pro	Arg	Pro	Trp	Gln	Ser	Gln	Thr	Asp	Ser	Asp	Ser
			20					25				30			
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
		35					40					45			
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
	50					55					60				
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
65					70				75					80	
Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
				85				90						95	
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
			100					105					110		
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
	115						120					125			
Ser	Tyr	Phe	Lys	Lys	His	Pro	Glu	Pro	Phe	Phe	Ala	Leu	Ala	Lys	Glu
	130					135					140				
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
145					150					155				160	
Leu	Leu	Lys	Asp	Lys	Gly	Leu	Leu	Leu	Arg	Cys	Tyr	Thr	Gln	Asn	Ile
			165					170					175		
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
		180						185					190		
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
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		260						265					270		
Val	Gln	Pro	Phe	Ala	Ser	Leu	Ile	Ser	Lys	Ala	Pro	Leu	Ser	Thr	Pro
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Gly	Met	Ile	Met	Gly	Leu	Gly	Gly	Gly	Met	Asp	Phe	Asp	Ser	Lys	Lys
305				310						315					320
Ala	Tyr	Arg	Asp	Val	Ala	Trp	Leu	Gly	Glu	Cys	Asp	Gln	Gly	Cys	Leu
			325						330					335	
Ala	Leu	Ala	Glu	Leu	Leu	Gly	Trp	Lys	Lys	Glu	Leu	Glu	Asp	Leu	Val
		340						345					350		
Arg	Arg	Glu	His	Ala	Ser	Ile	Asp	Ala	Gln	Ser	Gly	Ala	Gly	Val	Pro
	355					360					365				
Asn	Pro	Ser	Thr	Ser	Ala	Ser	Pro	Lys	Lys	Ser	Pro	Pro	Pro	Ala	Lys
	370					375					380				
Asp	Glu	Ala	Arg	Thr	Thr	Glu	Arg	Glu	Lys	Pro	Gln				
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&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

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<210> 5086

<211> 792

<212> PRT

<213> Homo sapiens

<400> 5086

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			20					25					30		
His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
		35					40					45			
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Ala	Arg	Gly	Ala	Leu	Gln	Asn	Arg	Leu	Arg	Val	Phe	Leu	Ser	Leu	Met
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Glu	Thr	Gly	Trp	Phe	Asp	Asn	Leu	Leu	Leu	Asp	Ile	Asp	Lys	Ala	Asp
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Thr	Glu	Asn	Asp	Leu	Arg	Ile	Leu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Gln
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Ala	Gly	Lys	Pro	Gly	Glu	Pro	Ser	Lys	Glu	Glu	Gly	Arg	Ala	Gly	

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Glu Ser Glu Ser Gly Gln Ala Glu Glu Glu Lys Glu Glu Ala Glu Glu		
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Ser Glu Pro Gln Pro Glu Arg Arg Phe Phe Arg Arg Gly Trp Val Thr		
370	375	380
Phe Asp Arg Ser Val Asn Ile Lys Glu Ile Cys Trp Asn Leu Gln Asn		
385	390	395
Ile Arg Leu Arg Glu Cys Glu Leu Ser Pro Gly Val Asn Arg Asp Leu		
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Thr Arg Arg Val Arg Asn Ile Asn Gly Ile Thr Gln His Lys Gln Ile		
420	425	430
Val Arg Asn Asp Ile Lys Leu Ala Ala Lys Leu Ile His Thr Leu Asp		
435	440	445
Asp Arg Thr Gln Leu Trp Ala Ser Glu Pro Gly Thr Pro Pro Leu Pro		
450	455	460
Thr Ser Leu Pro Ser Gln Asn Pro Ile Leu Lys Asn Ile Thr Asp Tyr		
465	470	475
Leu Ile Glu Glu Val Ser Ala Glu Glu Glu Leu Leu Gly Ser Ser		
485	490	495
Gly Gly Ala Pro Pro Glu Glu Pro Pro Lys Glu Gly Asn Pro Ala Glu		
500	505	510
Ile Asn Val Glu Arg Asp Glu Lys Leu Ile Lys Val Leu Asp Lys Leu		
515	520	525
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545	550	555
Val Arg Gly Pro Met Pro Pro Asn Arg Ile Ser His Gly Glu Val Leu		
565	570	575
Glu Trp Gln Lys Thr Phe Glu Glu Lys Leu Thr Pro Leu Leu Ser Val		
580	585	590
Arg Glu Ser Leu Ser Glu Glu Glu Ala Gln Lys Met Gly Arg Lys Asp		
595	600	605
Pro Glu Gln Glu Val Glu Lys Phe Val Thr Ser Asn Thr Gln Glu Leu		
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[illegible]

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<210> 5087
<211> 4949
<212> DNA
<213> Homo sapiens
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240
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&lt;210&gt; 5088

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5088

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 Thr Gly Arg Ile Arg Gly Asp Phe Arg Val Thr Phe Ser Ala Thr Arg  
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 Asn Ala Thr His Arg Gly Ala Val Ala Leu Asp Asp Leu Glu Phe Trp  
 100 105 110  
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Phe Tyr Gln Tyr Leu Ser Gly Ser Glu Ala Gly Cys Leu Gln Leu Phe		
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&lt;210&gt; 5089

&lt;211&gt; 793

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5089

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<211> 104

<212> PRT

<213> Homo sapiens

<400> 5090

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Met	Leu	Ser	Asp	Pro	Cys	Ala	Leu	Leu	Pro	Asp	Pro	Ala	Val	Glu	Glu
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<210> 5091

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<213> Homo sapiens

<400> 5091

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&lt;210&gt; 5092

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 <212> PRT  
 <213> Homo sapiens

<400> 5092

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Arg Asp Pro Ile Ser Leu Asp Cys Gly His Asp Phe Cys Ile Arg Cys
      65           70           75           80
Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
      85           90           95
Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
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Lys Met Lys Leu Leu Pro Gln Arg Pro Leu Pro Pro Ala Leu Gln Glu
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&lt;210&gt; 5093

&lt;211&gt; 1662

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5093

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&lt;210&gt; 5094

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5094

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Pro Ser Leu Ser Tyr Thr Lys Trp Lys Cys Leu Leu Tyr Cys Asn Gly		
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Val Leu Glu Pro Leu Tyr Leu Cys Pro Asn Gly Ala Arg Cys Ala Thr		80
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Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val		95
	100	105
Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro		110
	115	120
Ala Thr Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala		125
	130	135
Tyr Asp Gln Leu Lys Ala Phe Leu Cys Gly Arg Ala Leu Thr Ser Asp		140
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	165	170
Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln		175
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His Val Ser Tyr Arg Glu Leu Gly Ala Cys Val Arg Thr Ala Val Ala		190
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Gln Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu		205
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Arg Asp Val Pro Phe Ser Val His Pro Pro Pro Gln Ala Leu Tyr Trp		220
225	230	235
Phe Asn Tyr Glu Leu Val Lys Ser Trp Leu Asn Gly Leu Arg Pro Lys		240
	245	250
Asp Gln Thr Ser Val Gly Met Ser Phe Val Ala Gly Gly Ile Ser Gly		255
	260	265
Thr Val Ala Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys Thr Gln		270
	275	280
Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn Pro Leu		285
	290	295
His Val Asp Ser Thr Trp Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser		300
305	310	315
Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala		320
	325	330
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&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5095

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&lt;210&gt; 5098

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5098

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<212> PRT
<213> Homo sapiens
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&lt;210&gt; 5101

&lt;211&gt; 1711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5101

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&lt;210&gt; 5102

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

Met Ala Lys Leu Leu Ser Cys Val Leu Gly Pro Arg Leu Tyr Lys Ile  
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 Tyr Arg Glu Arg Asp Ser Glu Arg Ala Pro Ala Ser Val Pro Glu Thr  
 20 25 30  
 Pro Thr Ala Val Thr Ala Pro His Ser Ser Ser Trp Asp Thr Tyr Tyr  
 35 40 45  
 Gln Pro Arg Ala Leu Glu Lys His Ala Asp Ser Ile Leu Ala Leu Ala  
 50 55 60  
 Ser Val Phe Trp Ser Ile Ser Tyr Tyr Ser Ser Pro Phe Ala Phe Phe  
 65 70 75 80  
 Tyr Leu Tyr Arg Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe  
 85 90 95  
 Ser His Tyr Ala Gly Thr Leu Leu Leu Leu Leu Ala Gly Val Ala Cys  
 100 105 110  
 Leu Arg Gly Ile Gly Arg Trp Thr Asn Pro Gln Tyr Arg Gln Phe Ile  
 115 120 125  
 Thr Ile Leu Glu Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg  
 130 135 140  
 Gln Leu Ala Asn Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe  
 145 150 155 160  
 His Trp Glu Glu Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser

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                165                170                175
Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr
                180                185                190
Ala Asp Thr Leu Leu Asn Arg Val Lys Lys Leu Pro Cys Gln Ile Thr
                195                200                205
Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
                210                215                220
Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly
                225                230                235                240
Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu
                245                250                255
Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly
                260                265                270
Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn
                275                280                285
Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly
                290                295                300
Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
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Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln
                325                330                335
Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr
                340                345                350
Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr
                355                360                365
Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val
                370                375                380
Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr
                385                390                395                400
Arg Thr Val Arg Gln His Leu Asn Leu Asn Asn Ala Glu Gln Leu Cys
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Arg Tyr Gln Gly Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile
                420                425                430
Ile Thr Thr Thr
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&lt;210&gt; 5103

&lt;211&gt; 1982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

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1980



gg  
1982

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<211> 167  
<212> PRT  
<213> Homo sapiens

<400> 5104  
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Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp  
35 40 45  
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu  
50 55 60  
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro  
65 70 75 80  
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu  
85 90 95  
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe  
100 105 110  
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys  
115 120 125  
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly  
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Ser Ser Leu Val Pro Tyr Arg Pro Leu Phe Val His Gly Leu Ala Leu  
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Tyr Glu Arg Ala Met Cys Phe  
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<210> 5105  
<211> 1359  
<212> DNA  
<213> Homo sapiens

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120  
tccagttccc cccacaccca gcaaagtgga caagaccccc cagaggtggt tctctctgtt  
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420  
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 720  
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 780  
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 1200  
 gccagtgagg agcagcagag tctgatacta ggtctaggac cggccgaggt ataccatgaa  
 1260  
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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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			20					25					30		
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
		35					40					45			
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
	50					55				60					
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65					70				75					80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
			85					90					95		
Asp	Val	Leu	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu	
		100					105					110			
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
		115					120					125			
Val	Cys	Val	Arg	Cys	Pro	Gly	Tyr	Gly	Thr	Arg	Thr	Asn	Thr	Ile	Ile

130		135		140	
Leu Val Asp Ala Asp Gly His Val Thr Phe Thr Glu Arg Ser Met Met					
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Asp Lys Asp Leu Ser His Trp Glu Thr Arg Thr Tyr Glu Phe Thr Leu					
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Gln Ser					

<210> 5107  
 <211> 1207  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 1080  
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 1200

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1207

<210> 5108  
<211> 83  
<212> PRT  
<213> Homo sapiens

<400> 5108  
Met Arg Thr Gly Arg Ser Arg Ala Pro Ala Pro Val Cys Ile Tyr Leu  
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Phe Ile Tyr Leu Phe Arg Asp Arg Val Ser Leu Cys Arg Xaa Arg Gly  
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Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe  
35 40 45  
Lys Arg Phe Ser Cys Leu Ser Ser Leu Ser Ser Trp Asp Tyr Arg Arg  
50 55 60  
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val  
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Ser Pro Cys

<210> 5109  
<211> 651  
<212> DNA  
<213> Homo sapiens

<400> 5109  
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180  
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240  
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300  
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360  
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420  
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480  
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651

<210> 5110  
<211> 206  
<212> PRT

<213> Homo sapiens

<400> 5110

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      20           25           30
Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
      35           40           45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
      50           55           60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
      65           70           75           80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85           90           95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
      100          105          110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
      115          120          125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
      130          135          140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
      145          150          155          160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
      165          170          175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
      180          185          190
Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
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<210> 5111

<211> 2247

<212> DNA

<213> Homo sapiens

<400> 5111

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420
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540

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1920  
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1980  
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2160

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<210> 5112

<211> 581

<212> PRT

<213> Homo sapiens

<400> 5112

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			20					25					30		
Leu	Pro	Trp	Phe	Ala	Val	Val	Leu	Gly	Tyr	Arg	Glu	Arg	Pro	Arg	Val
		35					40					45			
Ser	Gly	Arg	Pro	Ser	Leu	Gly	Ala	Pro	Gln	Arg	Leu	Arg	Ala	Tyr	Gly
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Thr	Phe	Pro	His	Val	Ala	Ala	Lys	Thr	Gly	Ser	Gly	Ala	Ser	Ile	Gly
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Cys	Thr	Pro	Thr	Ser	Thr	Gln	Ala	Lys	Met	Val	Ser	Lys	Arg	Ile	Ala
		100						105					110		
Gln	Glu	Thr	Phe	Asp	Ala	Ala	Val	Arg	Glu	Asn	Ile	Glu	Glu	Phe	Ala
		115					120					125			
Met	Gly	Pro	Glu	Glu	Ala	Val	Lys	Glu	Ala	Val	Glu	Gln	Phe	Glu	Ser
	130					135					140				
Gln	Gly	Val	Asp	Leu	Ser	Asn	Ile	Val	Lys	Thr	Ala	Pro	Lys	Val	Ser
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			165					170						175	
Asp	Leu	Gln	Glu	Ser	Val	Ala	Ser	Ser	Arg	Pro	Gln	Glu	Val	Ser	Ala
		180					185					190			
Tyr	Leu	Thr	Arg	Phe	Cys	Asp	Gln	Cys	Lys	Gln	Asp	Lys	Ala	Cys	Arg
	195					200					205				
Phe	Leu	Ala	Ala	Gln	Lys	Gly	Ala	Tyr	Pro	Ile	Ile	Phe	Thr	Ala	Arg
	210					215					220				
Lys	Leu	Ala	Thr	Ala	Gly	Asp	Gln	Gly	Leu	Leu	Leu	Gln	Ser	Leu	Asn
225					230				235					240	
Ala	Leu	Ser	Val	Leu	Thr	Asp	Gly	Gln	Pro	Asp	Leu	Leu	Asp	Ala	Gln
			245					250						255	
Gly	Leu	Gln	Leu	Leu	Val	Ala	Thr	Leu	Thr	Gln	Asn	Ala	Asp	Glu	Ala
		260					265					270			
Asp	Leu	Thr	Cys	Ser	Gly	Ile	Arg	Cys	Val	Arg	His	Ala	Cys	Leu	Lys
	275					280					285				
His	Glu	Gln	Asn	Arg	Gln	Asp	Leu	Val	Lys	Ala	Gly	Val	Leu	Pro	Leu
	290					295					300				
Leu	Thr	Gly	Ala	Ile	Thr	His	His	Gly	His	His	Thr	Asp	Val	Val	Arg
305					310					315				320	
Glu	Ala	Cys	Trp	Ala	Leu	Arg	Val	Met	Thr	Phe	Asp	Asp	Asp	Ile	Arg
			325					330						335	
Val	Pro	Phe	Gly	His	Ala	His	Asn	His	Ala	Lys	Met	Ile	Val	Gln	Glu

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 Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp  
 355 360 365  
 Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala  
 370 375 380  
 Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser  
 385 390 395 400  
 Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp  
 405 410 415  
 Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg  
 420 425 430  
 Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly  
 435 440 445  
 Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro  
 450 455 460  
 Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg  
 465 470 475 480  
 Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala  
 485 490 495  
 Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys  
 500 505 510  
 Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe  
 515 520 525  
 Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala  
 530 535 540  
 Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg  
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 Gly Asn Leu Ala Pro  
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&lt;210&gt; 5113

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5113

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 120  
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 180  
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 300  
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 360  
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<210> 5114  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

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 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
 35 40 45  
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
 50 55 60  
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
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 Thr Phe Phe Pro  
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<210> 5115  
 <211> 1003  
 <212> DNA  
 <213> Homo sapiens

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 300  
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 360  
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 420  
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 660  
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 780

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<210> 5116

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5116

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Arg	Gly	Ser	Gln	Val	Thr	Ala	Gly	Glu	Ala	Asp	Gly	Arg	Ala	Pro	Gly
			20					25					30		
Ser	Pro	Gly	Pro	Gln	Ala	Leu	Lys	Gly	Gly	Ala	Arg	Gly	Ser	Gly	His
		35					40					45			
Val	Leu	Thr	Ser	Ser	Ser	Gly	Ser	Ala	Cys	Ala	Gly	Ser	Pro	Leu	Cys
	50					55					60				
Pro	Ala	Met	Ser	His	Leu	Gly	Val	Ser	His	Val	Arg	Glu	Gln	Leu	Leu
65					70					75				80	
Leu	Ser	Ile	Met	Gln	Phe	Leu	Ser	Trp	Val	Ile	Ala	Val	His	Gly	Glu
				85					90					95	
Gln	Val	His	Ala	Gln	Pro	Val	His	Pro	Leu	Phe	Leu	Leu	Tyr	Ile	His
			100					105					110		
Tyr	His	Ser	His	His	His	Pro	Asp	Gln	Gly	Asp	Glu	Glu	Glu	Gly	Pro
		115					120					125			
Gln	His	Ile	Ala	His	His	Gly	Val	Ala	Val	Gly	Leu	Gly	Gly	Ile	Gly
	130					135					140				
His	Ser	Gly	Val	Thr	His	Asp	Ile	Ser	Ser	Arg	Arg	Ala	Gly	Trp	Ser
145					150					155				160	
Ala	Trp	Ala	Val	Ala	Leu	Arg	Glu	Gly	Ala	Ser	Thr	Gly	Leu	Pro	Ser
				165					170					175	
Arg	Met	Leu	Ile	Val	Pro	Gly	Gln	Gly	Gly	Met	Pro	Gly	Trp	Gly	Gly
			180					185					190		
Arg	Gln	Ala	Ala	Ala	Arg	Met	Arg	Ala	Ser	Asn	Ser	Gly	Xaa	Gly	Gly
		195				200						205			
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Gly	Cys														
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<210> 5117

<211> 1180

<212> DNA

<213> Homo sapiens

<400> 5117

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 240  
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 420  
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 480  
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 1080  
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 1180

&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

Met	Ala	Glu	Ser	Glu	Asp	Arg	Ser	Leu	Arg	Ile	Val	Leu	Val	Gly	Lys
1				5					10					15	
Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
			20					25					30		
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35					40					45			
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
	50					55				60					
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

65					70					75				80
Ile	Ser	Arg	Cys	Ile	Ile	Ser	Ser	Cys	Pro	Gly	Pro	His	Ala	Ile Val
				85					90					95
Leu	Val	Leu	Leu	Leu	Gly	Arg	Tyr	Thr	Glu	Glu	Glu	Gln	Lys	Thr Val
			100					105					110	
Ala	Leu	Ile	Lys	Ala	Val	Phe	Gly	Lys	Ser	Ala	Met	Lys	His	Met Val
		115					120				125			
Ile	Leu	Phe	Thr	Arg	Lys	Glu	Glu	Leu	Glu	Gly	Gln	Ser	Phe	His Asp
	130					135				140				
Phe	Ile	Ala	Asp	Ala	Asp	Val	Gly	Leu	Lys	Ser	Ile	Val	Lys	Glu Cys
145					150					155				160
Gly	Asn	Arg	Cys	Cys	Ala	Phe	Ser	Asn	Ser	Lys	Lys	Thr	Ser	Lys Ala
			165					170						175
Glu	Lys	Glu	Ser	Gln	Val	Gln	Glu	Leu	Val	Glu	Leu	Ile	Glu	Lys Met
			180					185					190	
Val	Gln	Cys	Asn	Glu	Gly	Ala	Tyr	Phe	Ser	Asp	Asp	Ile	Tyr	Lys Asp
	195						200					205		
Thr	Glu	Glu	Arg	Leu	Lys	Gln	Arg	Glu	Glu	Val	Leu	Arg	Lys	Ile Tyr
	210					215					220			
Thr	Asp	Gln	Leu	Asn	Glu	Glu	Ile	Lys	Leu	Val	Glu	Glu	Asp	Lys His
225					230					235				240
Lys	Ser	Glu	Glu	Glu	Lys	Glu	Lys	Glu	Ile	Lys	Leu	Leu	Lys	Leu Lys
			245					250					255	
Tyr	Asp	Glu	Lys	Ile	Lys	Asn	Ile	Arg	Glu	Glu	Ala	Glu	Arg	Asn Ile
		260						265					270	
Phe	Lys	Asp	Val	Phe	Asn	Arg	Ile	Trp	Lys	Met	Leu	Ser	Glu	Ile Trp
	275						280					285		
His	Arg	Phe	Leu	Ser	Lys	Cys	Lys	Phe	Tyr	Ser	Ser			
	290					295					300			

&lt;210&gt; 5119

&lt;211&gt; 1450

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5119

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180  
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240  
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300  
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420  
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480  
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540

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 accatgatca tgcacccaaa actttgtctg cagctgggcta tcttggcatg ggggactggc  
 660  
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 720  
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 1450

&lt;210&gt; 5120

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5120

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Phe	Ser	Asn	Lys	Pro	His	Leu	Glu	Lys	Ile	Leu	Phe	Xaa	Ile	Ile	Phe
		20						25				30			
Ile	Phe	Tyr	Phe	Leu	Thr	Leu	Ala	Gly	Asn	Met	Val	Ile	Val	Leu	Val
		35					40				45				
Ser	Leu	Lys	Asp	Pro	Lys	Leu	His	Ile	Pro	Met	Tyr	Phe	Phe	Leu	Ser
	50					55				60					
Asn	Leu	Ser	Leu	Val	Asp	Leu	Cys	Leu	Thr	Ser	Ser	Cys	Val	Pro	Gln
65				70					75					80	
Met	Leu	Ile	Asn	Phe	Trp	Gly	Pro	Glu	Lys	Thr	Ile	Ser	Tyr	Ile	Gly
			85					90					95		
Cys	Ala	Ile	Gln	Leu	Tyr	Val	Phe	Leu	Trp	Leu	Gly	Ala	Thr	Glu	Tyr
		100						105				110			
Val	Leu	Leu	Val	Val	Met	Ala	Val	Asp	Cys	Tyr	Val	Ala	Val	Cys	His

115	120	125
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130	135	140
Ala Ile Leu Ala Trp Gly	Thr Gly Leu Ala Gln	Ser Leu Ile Gln Ser
145	150	155
Pro Ala Thr Leu Arg Leu	Pro Phe Cys Ser Gln	Arg Met Val Asp Asp
165	170	175
Val Val Cys Glu Val Pro	Ala Leu Ile Gln Leu	Ser Ser Thr Asp Thr
180	185	190
Thr Tyr Ser Glu Ile Gln	Met Ser Ile Ala Ser	Val Val Leu Leu Val
195	200	205
Met Pro Leu Ile Ile Ile	Leu Ser Ser Ser Gly	Ala Ile Ala Lys Ala
210	215	220
Val Leu Arg Ile Lys Ser	Thr Ala Gly Gln Lys	Lys Ala Phe Gly Thr
225	230	235
Cys Ile Ser His Leu Val	Val Ser Leu Phe Tyr	Gly Thr Val Thr
245	250	255
Gly Val Tyr Leu Gln Pro	Lys Asn His Tyr Pro	His Glu Trp Gly Lys
260	265	270
Phe Leu Thr Leu Phe Tyr	Thr Val Thr Pro Thr	Leu Asn Pro Leu
275	280	285
Ile Tyr Thr Leu Arg Asn	Lys Glu Val Lys Gly	Ala Leu Ile Arg Leu
290	295	300
Gly Arg Arg Thr Trp Asp	Ser Gln Asn Asn	
305	310	

&lt;210&gt; 5121

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5121

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660

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<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

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Glu	Val	Lys	Ile	Ser	Ser	Ala	Val	Leu	Lys	Ala	Ala	Ala	His	His	Tyr
			20					25					30		
Gly	Ala	Gln	Cys	Asp	Lys	Pro	Asn	Lys	Glu	Phe	Met	Leu	Cys	Arg	Trp
		35					40					45			
Glu	Glu	Lys	Asp	Pro	Arg	Arg	Cys	Leu	Glu	Glu	Gly	Lys	Leu	Val	Asn
	50					55					60				
Lys	Cys	Ala	Leu	Asp	Phe	Phe	Arg	Gln	Ile	Lys	Arg	His	Cys	Ala	Glu
65					70				75						80
Pro	Phe	Thr	Glu	Tyr	Trp	Thr	Cys	Ile	Asp	Tyr	Thr	Gly	Gln	Gln	Leu
				85				90					95		
Phe	Arg	His	Cys	Arg	Lys	Gln	Gln	Ala	Lys	Phe	Asp	Glu	Cys	Val	Leu
			100					105					110		
Asp	Lys	Leu	Gly	Trp	Val	Arg	Pro	Asp	Leu	Gly	Glu	Leu	Ser	Lys	Val
		115					120					125			
Thr	Lys	Val	Lys	Thr	Asp	Arg	Pro	Leu	Pro	Glu	Asn	Pro	Tyr	His	Ser
	130					135					140				
Arg	Pro	Arg	Pro	Asp	Pro	Ser	Pro	Glu	Ile	Glu	Gly	Asp	Leu	Gln	Pro
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<210> 5123

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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&lt;210&gt; 5124

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5124

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&lt;210&gt; 5125

&lt;211&gt; 6244



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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&lt;210&gt; 5126

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 <212> PRT  
 <213> Homo sapiens

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 Phe Ser Cys Ser Phe Cys Val Val Phe Arg Gly Gly Ser Pro His Ala  
 35 40 45  
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln  
 50 55 60  
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu  
 65 70 75 80  
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly  
 85 90 95  
 Arg Ser Asp Thr Leu Val Ser Phe Phe Gln Glu Thr Ile Ala Phe Thr  
 100 105 110  
 Asp Val Leu Val Val  
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<210> 5127  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
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35 40 45  
Ala Ser Ser Thr Thr Ile Ser  
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<210> 5129  
<211> 745  
<212> DNA  
<213> Homo sapiens

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<210> 5130  
<211> 111  
<212> PRT  
<213> Homo sapiens

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20 25 30  
Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly  
35 40 45  
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn  
50 55 60  
Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro  
65 70 75 80  
Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly

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<210> 5131  
 <211> 789  
 <212> DNA  
 <213> Homo sapiens

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<210> 5132  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 5132  
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 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu  
 35 40 45  
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met  
 50 55 60  
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

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Val	Thr	Asn	Pro	Ser	Gln	Arg	Ala	Glu	Val	Glu	Arg	Val	Lys	Asp	Val
			100						105					110	
Leu	Leu	Lys	Ser	Thr	Cys	Val	Leu	Glu	Ala	Phe	Gly	Asn	Ala	Arg	Thr
		115						120					125		
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	130						135					140			
Phe	Asp	Phe	Lys	Gly	Asp	Pro	Ile	Gly	Gly	His	Ile	His	Ser	Tyr	Leu
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Leu	Glu	Lys	Ser	Arg	Val	Leu	Lys	Gln	His	Val	Gly	Glu	Arg	Asn	Phe
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His	Ala	Phe	Tyr	Gln	Leu	Leu	Arg	Gly	Ser	Glu	Asp	Lys	Gln	Leu	His
		180						185					190		
Glu	Leu	His	Leu	Glu	Arg	Asn	Pro	Ala	Val	Tyr	Asn	Phe	Thr	His	Gln
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Gly	Ala	Gly	Leu	Asn	Met	Thr	Val	His	Ser	Ala	Leu	Asp	Ser	Asp	Glu
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Pro	Glu	Glu	Val	Glu	Ser	Val	His	Arg	Ile	Leu	Ala	Ala	Ile	Leu	His
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&lt;210&gt; 5133

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

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&lt;210&gt; 5134



<211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 5134

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His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu
      35           40           45
Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser
      50           55           60
Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val
65           70           75           80
Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val
      85           90           95
Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu
      100          105          110
Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser
      115          120          125
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<210> 5135  
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 <212> DNA  
 <213> Homo sapiens

<400> 5135

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<210> 5136

<211> 341

<212> PRT

<213> Homo sapiens

<400> 5136

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				20				25					30		
Gly	Leu	Leu	Ser	Gly	Gly	Leu	Pro	Arg	Lys	Cys	Ser	Val	Phe	His	Leu
				35			40					45			
Phe	Val	Ala	Cys	Leu	Ser	Leu	Gly	Phe	Phe	Ser	Leu	Leu	Trp	Leu	Gln
				50			55				60				
Leu	Ser	Cys	Ser	Gly	Asp	Val	Ala	Arg	Ala	Val	Arg	Gly	Gln	Gly	Gln
65					70					75				80	
Glu	Thr	Ser	Gly	Pro	Pro	Arg	Ala	Cys	Pro	Pro	Glu	Pro	Pro	Pro	Glu

85							90							95						
His	Trp	Glu	Glu	Asp	Ala	Ser	Trp	Gly	Pro	His	Arg	Leu	Ala	Val	Leu					
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Val	Pro	Phe	Arg	Glu	Arg	Phe	Glu	Glu	Leu	Leu	Val	Phe	Val	Pro	His					
115							120							125						
Met	Arg	Arg	Phe	Leu	Ser	Arg	Lys	Lys	Ile	Arg	His	His	Ile	Tyr	Val					
130							135							140						
Leu	Asn	Gln	Val	Asp	His	Phe	Arg	Phe	Asn	Arg	Ala	Ala	Leu	Ile	Asn					
145							150							155						
Val	Gly	Phe	Leu	Glu	Ser	Ser	Asn	Ser	Thr	Asp	Tyr	Ile	Ala	Met	His					
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180							185							190						
Glu	Ala	Gly	Pro	Phe	His	Val	Ala	Ser	Pro	Glu	Leu	His	Pro	Leu	Tyr					
195							200							205						
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245							250							255						
Phe	Arg	Pro	Ser	Gly	Ile	Thr	Thr	Gly	Tyr	Lys	Thr	Phe	Arg	His	Leu					
260							265							270						
His	Asp	Pro	Ala	Trp	Arg	Lys	Arg	Asp	Gln	Lys	Arg	Ile	Ala	Ala	Gln					
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Lys	Gln	Glu	Gln	Phe	Lys	Val	Asp	Arg	Glu	Gly	Gly	Leu	Asn	Thr	Val					
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Lys	Tyr	His	Val	Ala	Ser	Arg	Thr	Ala	Leu	Ser	Val	Gly	Gly	Ala	Pro					
305							310							315						
Cys	Thr	Val	Leu	Asn	Ile	Met	Leu	Asp	Cys	Asp	Lys	Thr	Ala	Thr	Pro					
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<212> DNA
<213> Homo sapiens
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420
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<210> 5138

<211> 371

<212> PRT

<213> Homo sapiens

<400> 5138

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			20					25					30		
Ala	Pro	Leu	Asp	Trp	Ala	Leu	Pro	Leu	Ser	Glu	Val	Pro	Ser	Asp	Trp
		35				40					45				
Glu	Val	Asp	Asp	Leu	Leu	Cys	Ser	Leu	Leu	Ser	Pro	Pro	Ala	Ser	Leu
	50				55					60					
Asn	Ile	Leu	Ser	Ser	Ser	Asn	Pro	Cys	Leu	Val	His	His	Asp	His	Thr
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[illegible]

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<210> 5139
<211> 1968
<212> DNA
<213> Homo sapiens
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1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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			20					25					30		
Asn	His	Thr	Gly	Glu	Leu	Leu	Ala	Thr	Gly	Asp	Lys	Gly	Gly	Arg	Val
		35					40					45			
Val	Ile	Phe	Gln	Arg	Glu	Gln	Glu	Ser	Lys	Asn	Gln	Val	His	Arg	Arg
	50					55				60					
Gly	Glu	Tyr	Asn	Val	Tyr	Ser	Thr	Phe	Gln	Ser	His	Glu	Pro	Glu	Phe
65					70					75				80	
Asp	Tyr	Leu	Lys	Ser	Leu	Glu	Ile	Glu	Glu	Lys	Ile	Asn	Lys	Ile	Arg
			85						90					95	
Trp	Leu	Pro	Gln	Asn	Ala	Ala	Tyr	Phe	Leu	Leu	Ser	Thr	Asn	Asp	
			100					105					110		
Lys	Thr	Val	Lys	Leu	Trp	Lys	Val	Ser	Glu	Arg	Asp	Lys	Arg	Pro	Glu
		115					120					125			
Gly	Tyr	Asn	Leu	Lys	Asp	Glu	Glu	Gly	Arg	Leu	Arg	Asp	Pro	Ala	Thr
	130					135					140				
Ile	Thr	Thr	Leu	Arg	Val	Pro	Val	Leu	Arg	Pro	Met	Asp	Leu	Met	Val
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Glu	Ala	Thr	Pro	Arg	Arg	Val	Phe	Ala	Asn	Ala	His	Thr	Tyr	His	Ile
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Ile	Thr	Ala	Ala	Glu	Phe	His	Pro	His	His	Cys	Asn	Thr	Phe	Val	Tyr
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Phe	Ser	His	Ser	Gly	Arg	Tyr	Ile	Met	Thr	Arg	Asp	Tyr	Leu	Thr	Val
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Lys	Val	Trp	Asp	Leu	Asn	Met	Glu	Ser	Arg	Pro	Val	Glu	Thr	His	Gln
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Val	His	Asp	Tyr	Leu	Arg	Ser	Lys	Leu	Cys	Ser	Leu	Tyr	Glu	Asn	Asp
			325						330					335	
Cys	Ile	Phe	Asp	Lys	Phe	Glu	Cys	Val	Trp	Asn	Gly	Ser	Asp	Ser	Val
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Ile	Met	Thr	Gly	Ser	Tyr	Asn	Asn	Phe	Phe	Arg	Met	Phe	Asp	Arg	Asp



355	360	365
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370	375	380
Arg Ala Ile Leu Lys	Pro Arg Lys Val Cys Val	Gly Gly Lys Arg Arg
385	390	395
Lys Asp Glu Ile Ser	Val Asp Ser Leu Asp Phe	Ser Lys Lys Ile Leu
405	410	415
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 <212> DNA  
 <213> Homo sapiens

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<210> 5142  
 <211> 227  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5142

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Glu Arg Leu Ile His Cys Tyr Asp Glu Glu Val Val Lys Glu Leu Met
          20           25           30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
          35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
          50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
65           70           75           80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
          85           90           95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
          100          105          110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
          115          120          125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
          130          135          140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
          145          150          155          160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
          165          170          175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
          180          185          190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
          195          200          205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
          210          215          220
Gln Val Leu
225

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&lt;210&gt; 5143

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5143

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240
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420

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 660  
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 1380  
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 1666

&lt;210&gt; 5144

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5144

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Phe	Glu	Ser	Ala	Val	Gln	Glu	Asn	Ile	Ser	Ile	Asn	Gly	Gln	Ala	Trp
				20				25				30			
Gln	Glu	Ala	Ser	Asp	Asn	Cys	Phe	Met	Asp	Ser	Asp	Ile	Lys	Val	Leu

35					40					45					
Glu	Asp	Gln	Phe	Asp	Glu	Ile	Ile	Val	Asp	Ile	Ala	Thr	Lys	Arg	Lys
50					55					60					
Gln	Tyr	Pro	Arg	Lys	Ile	Leu	Glu	Cys	Val	Ile	Lys	Thr	Ile	Lys	Ala
65					70					75					80
Lys	Gln	Glu	Ile	Leu	Lys	Gln	Tyr	His	Pro	Val	Val	His	Pro	Leu	Asp
85					90					95					
Leu	Lys	Tyr	Asp	Pro	Asp	Pro	Ala	Pro	His	Met	Glu	Asn	Leu	Lys	Cys
100					105					110					
Arg	Gly	Glu	Thr	Val	Ala	Lys	Glu	Ile	Ser	Glu	Ala	Met	Lys	Ser	Leu
115					120					125					
Pro	Ala	Leu	Ile	Glu	Gln	Gly	Glu	Gly	Phe	Ser	Gln	Val	Leu	Arg	Met
130					135					140					
Gln	Pro	Val	Ile	His	Leu	Gln	Arg	Ile	His	Gln	Glu	Val	Phe	Ser	Ser
145					150					155					160
Cys	His	Arg	Lys	Pro	Asp	Ala	Lys	Pro	Glu	Asn	Phe	Ile	Thr	Gln	Ile
165					170					175					
Glu	Thr	Thr	Pro	Thr	Glu	Thr	Ala	Ser	Arg	Lys	Thr	Ser	Asp	Met	Val
180					185					190					
Leu	Lys	Arg	Lys	Gln	Thr	Lys	Asp	Cys	Pro	Gln	Arg	Lys	Trp	Tyr	Pro
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210					215										

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<210> 5145
<211> 1885
<212> DNA
<213> Homo sapiens
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480
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600
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720

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 1860  
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 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

Pro	Ala	Thr	Ser	Glu	Lys	Glu	Ser	Ile	Leu	Leu	Phe	Pro	Asp	Leu	Arg
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Cys	Ala	Leu	Ala	Gly	His	Asn	Asp	Leu	Val	Glu	Ile	His	Leu	Ser	Gly
			20					25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40				45				
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

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 Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys  
 65                      70                      75                      80  
 Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro  
                     85                      90                      95  
 Ser Phe Leu Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr  
                     100                      105                      110  
 Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr  
                     115                      120                      125  
 Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly  
                     130                      135                      140  
 Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala  
 145                      150                      155                      160  
 Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile  
                     165                      170                      175  
 Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro  
                     180                      185                      190  
 Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu  
                     195                      200                      205  
 Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly  
                     210                      215                      220  
 Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu  
 225                      230                      235                      240  
 Ser Ile Val Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe  
                     245                      250                      255  
 Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met  
                     260                      265                      270  
 Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro  
                     275                      280                      285  
 Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser  
                     290                      295                      300  
 Gly Phe Leu Ile Phe Pro Ser Ala  
 305                      310

&lt;210&gt; 5147

&lt;211&gt; 2943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5147

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 360  
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480  
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660  
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 2943

<210> 5148

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5148

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	20						25					30			
Ile	Asp	Ile	Asp	Thr	Leu	Cys	Ala	Val	Leu	Glu	Arg	Asp	Thr	Leu	Ser
	35				40					45					
Ile	Arg	Glu	Ser	Arg	Leu	Phe	Gly	Ala	Val	Val	Arg	Trp	Ala	Glu	Ala
	50				55					60					
Glu	Cys	Gln	Arg	Gln	Gln	Leu	Pro	Val	Thr	Phe	Gly	Asn	Lys	Gln	Lys
65				70					75					80	
Val	Leu	Gly	Lys	Ala	Leu	Ser	Leu	Ile	Arg	Phe	Pro	Leu	Met	Thr	Ile
			85					90					95		
Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile	Leu	Ser	Asp	Arg
			100					105				110			
Glu	Val	Val	Asn	Leu	Phe	Leu	His	Phe	Thr	Val	Asn	Pro	Lys	Pro	Arg



		115				120					125				
Val	Glu	Tyr	Ile	Asp	Arg	Pro	Arg	Cys	Cys	Leu	Arg	Gly	Lys	Glu	Cys
	130					135					140				
Cys	Ile	Asn	Arg	Phe	Gln	Gln	Val	Glu	Ser	Arg	Trp	Gly	Tyr	Ser	Gly
145					150					155					160
Thr	Ser	Asp	Arg	Ile	Arg	Phe	Thr	Val	Asn	Arg	Arg	Ile	Ser	Ile	Val
				165						170				175	
Gly	Phe	Gly	Leu	Tyr	Gly	Ser	Ile	His	Gly	Pro	Thr	Asp	Tyr	Gln	Val
			180					185					190		
Asn	Ile	Gln	Ile	Ile	Glu	Tyr	Glu	Lys	Lys	Gln	Thr	Leu	Gly	Gln	Asn
		195					200					205			
Asp	Thr	Gly	Phe	Ser	Cys	Asp	Gly	Thr	Ala	Asn	Thr	Phe	Arg	Val	Met
	210					215					220				
Phe	Lys	Glu	Pro	Ile	Glu	Ile	Leu	Pro	Asn	Val	Cys	Tyr	Thr	Ala	Cys
225					230					235					240
Ala	Thr	Leu	Lys	Gly	Pro	Asp	Ser	His	Tyr	Gly	Thr	Lys	Gly	Leu	Lys
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Lys	Val	Val	His	Glu	Thr	Pro	Ala	Ala	Ser	Lys	Thr	Val	Phe	Phe	Phe
			260					265					270		
Phe	Ser	Ser	Pro	Gly	Asn	Asn	Asn	Gly	Thr	Ser	Ile	Glu	Asp	Gly	Gln
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<211> 533
<212> DNA
<213> Homo sapiens
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<210> 5150
<211> 154
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 5150

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 Lys Asp Arg Cys Val Arg Leu Ala Leu Val His Asp Met Ala Glu Cys  
 20 25 30  
 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys  
 35 40 45  
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro  
 50 55 60  
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr  
 65 70 75 80  
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu  
 85 90 95  
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly  
 100 105 110  
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro  
 115 120 125  
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn  
 130 135 140  
 Ile Ala Ala Ala Ala Ser Glu Pro His Ser  
 145 150

&lt;210&gt; 5151

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5151

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2273

&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5152

```

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Thr Met Arg Ser Ser Ile Pro His Trp Arg Ile Ser Arg Met Cys Leu
          20           25           30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
          35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
          50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
          85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
          100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
          115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
          130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
          165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
          180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
          195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
          210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
          245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
          260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
          275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
          290          295          300
Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
305          310          315          320
Arg Ile Leu Val

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&lt;210&gt; 5153

&lt;211&gt; 640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5153

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60

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&lt;210&gt; 5154

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5154

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		20						25					30		
Ala	Cys	His	Arg	Trp	Leu	Gln	Glu	Gly	Ser	Thr	Leu	Gly	Gly	Thr	Gly
	35					40						45			
Glu	Leu	Ala	Phe	Gly	Ala	Asp	Thr	Leu	Leu	Thr	Leu	Pro	Phe	Leu	Leu
50					55						60				
Gln	Gly	Val	Pro	Phe	Pro	Gln	Asn	Glu	Ala	Asn	Ala	Met	Asp	Val	Val
65					70					75				80	
Val	Gln	Phe	Ala	Ile	His	Arg	Leu	Gly	Phe	Gln	Pro	Gln	Asp	Ile	Ile
		85						90					95		
Ile	Tyr	Ala	Trp	Ser	Ile	Gly	Gly	Phe	Thr	Ala	Thr	Trp	Ala	Ala	Met
		100						105					110		
Ser	Tyr	Pro	Asp	Val	Ser	Ala	Met	Ile	Leu	Asp	Ala	Ser	Phe	Asp	Asp
		115					120					125			
Leu	Val	Pro	Leu	Ala	Leu	Lys	Val	Met	Pro	Asp	Ser	Trp	Ser	Glu	Cys
	130					135					140				
Ser	Ser	Gln	Ala	Cys	Pro	Ser	Trp	Glu	Gly	Val	Gly	Trp	Asn	Trp	Glu
145					150					155					160
Leu	Phe														

&lt;210&gt; 5155

&lt;211&gt; 1402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5155

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1402

&lt;210&gt; 5156

&lt;211&gt; 118

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5156

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Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
 35           40           45
Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
 50           55           60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
 65           70           75           80
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
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Arg Gly Leu Leu Glu Ser Cys Met Phe Gly Cys Arg Ala Arg Val Thr
100           105           110
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<210> 5157

<211> 1310

<212> DNA

<213> Homo sapiens

<400> 5157

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120
cggggcaggg gaattgcac tgcaggaaag agatgcagca tgctctcac tctgagtgc
180
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660
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720
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780
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840

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<210> 5158

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5158

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			20					25					30		
Gln	Glu	Leu	Ala	Ile	Arg	Tyr	Val	Leu	Cys	Gly	Gln	Ser	Ala	Ser	Gln
			35				40					45			
Thr	His	Arg	Cys	Ser	Pro	Ala	Trp	Leu	Ser	Trp	Asp	Leu	Asn	Leu	Leu
	50					55					60				
Val	Lys	Ser	Phe	Ser	Leu	Ser	Glu	Val	Pro	Ser	Leu	Gln	Met	Leu	Asn
65					70					75				80	
Leu	Ala														

<210> 5159

<211> 3233

<212> DNA

<213> Homo sapiens

<400> 5159

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 240  
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 300  
 cagcgagtgt gtttgaggat agtgagcgaa cagtttgtct gttcacggac atctgtccag  
 360



agtggcaagc acatagtggg taaccagaat gggcctcttc cctttccttt ttggttaccc  
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1980

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&lt;210&gt; 5160

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5160

Met	Asn	Glu	Ile	Leu	Asp	Leu	Arg	Arg	Gln	Val	Leu	Val	Gly	His	Leu
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Thr	His	Asp	Arg	Met	Lys	Asp	Val	Lys	Arg	His	Ile	Thr	Ala	Arg	Leu
			20						25					30	
Asp	Trp	Gly	Asn	Glu	Gln	Leu	Gly	Leu	Asp	Leu	Val	Pro	Arg	Lys	Glu

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Tyr	Ala	Met	Val	Asp	Pro	Glu	Asp	Ile	Ser	Ile	Thr	Glu	Leu	Tyr	Arg
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Leu	Ser	Met	Leu	Ile	Met	Phe	Leu	Leu	Gly	Gly	Val	Ile	Gln	Met	Glu
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His	Arg	His	Arg	Lys	Lys	Asp	Thr	Pro	Val	Gln	Ala	Ser	Ser	His	His
				85					90					95	
Leu	Phe	Val	Gln	Met	Lys	Ser	Leu	Met	Cys	Ser	Asn	Leu	Gly	Glu	Glu
			100					105					110		
Leu	Glu	Val	Ile	Phe	Ser	Leu	Phe	Asp	Ser	Lys	Glu	Asn	Arg	Pro	Ile
		115					120					125			
Ser	Glu	Arg	Phe	Phe	Leu	Arg	Leu	Asn	Arg	Asn	Gly	Leu	Pro	Lys	Ala
	130					135					140				
Pro	Asp	Lys	Pro	Glu	Arg	His	Cys	Ser	Leu	Phe	Val	Asp	Leu	Gly	Ser
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Ser	Glu	Leu	Arg	Lys	Asp	Ile	Tyr	Ile	Thr	Val	His	Ile	Ile	Arg	Ile
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Gly	Arg	Met	Gly	Ala	Gly	Glu	Lys	Lys	Asn	Ala	Cys	Ser	Val	Gln	Tyr
			180					185					190		
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Ala	Arg	Tyr	Asn	Leu	Thr	Gly	Ser	Asn	Ala	Gly	Leu	Ala	Val	Ser	Leu
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			260					265					270		
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305					310					315					320
Val	Thr	Met	Phe	Ile	Val	Asp	Ser	Ser	Gly	Gln	Thr	Leu	Lys	Asp	Phe
			325						330					335	
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			340					345					350		
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		355					360					365			
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 Asp Leu Leu Lys Trp Arg Thr His Pro Asp Lys Ile Thr Gly Cys Leu  
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 Ser Lys Leu Lys Glu Ile Asp Gly Ser Glu Ile Val Lys Phe Leu Gln  
    500                                      505                                      510  
 Asp Thr Leu Asp Thr Leu Phe Gly Ile Leu Asp Glu Asn Ser Gln Lys  
    515                                      520                                      525  
 Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu  
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 Gln Asp Ser Lys Phe His His Phe Lys Pro Val Met Asp Thr Tyr Ile  
 545                                      550                                      555                                      560  
 Glu Ser His Phe Ala Gly Ala Leu Ala Tyr Arg Asp Leu Ile Lys Val  
    565                                      570                                      575  
 Leu Lys Trp Tyr Val Asp Arg Ile Thr Glu Ala Glu Arg Gln Glu His  
    580                                      585                                      590  
 Ile Gln Glu Val Leu Lys Ala Gln Glu Tyr Ile Phe Lys Tyr Ile Val  
    595                                      600                                      605  
 Gln Ser Arg Arg Leu Phe Ser Leu Ala Thr Gly Gly Gln Asn Glu Glu  
    610                                      615                                      620  
 Glu Phe Arg Cys Cys Ile Gln Glu Leu Leu Met Ser Val Arg Phe Phe  
 625                                      630                                      635                                      640  
 Leu Ser Gln Glu Ser Lys Gly Ser Gly Ala Leu Ser Gln Ser Gln Ala  
    645                                      650                                      655  
 Val Phe Leu Ser Ser Phe Pro Ala Val Tyr Ser Glu Leu Leu Lys Leu  
    660                                      665                                      670  
 Phe Asp Val Arg Glu Val Ala Asn Leu Val Gln Asp Thr Leu Gly Ser  
    675                                      680                                      685  
 Leu Pro Thr Ile Leu His Val Asp Asp Ser Leu Gln Ala Ile Lys Leu  
    690                                      695                                      700  
 Gln Cys Ile Gly Lys Thr Val Glu Ser Gln Leu Tyr Thr Asn Pro Asp  
 705                                      710                                      715                                      720  
 Ser Arg Tyr Ile Leu Leu Pro Val Val Leu His His Leu His Ile His  
    725                                      730                                      735  
 Leu Gln Glu Gln Lys Asp Leu Ile Met Cys Ala Arg Ile Leu Ser Asn  
    740                                      745                                      750  
 Val Phe Cys Leu Ile Lys Lys Asn Ser Ser Glu Lys Ser Val Leu Glu  
    755                                      760                                      765  
 Glu Ile Asp Val Ile Val Ala Ser Leu Leu Asp Ile Leu Leu Arg Thr  
    770                                      775                                      780  
 Ile Leu Glu Ile Thr Ser Arg Pro Gln Pro Ser Ser Ser Ala Met Arg  
 785                                      790                                      795                                      800  
 Phe Gln Phe Gln Asp Val Thr Gly Glu Phe Val Ala Cys Leu Leu Ser  
    805                                      810                                      815  
 Leu Leu Arg Gln Met Thr Asp Arg His Tyr Gln Gln Leu Leu Asp Ser  
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<210> 5161  
 <211> 1645  
 <212> DNA  
 <213> Homo sapiens

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 <211> 207  
 <212> PRT  
 <213> Homo sapiens

<400> 5162  
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 35 40 45  
 Leu Val Gln Ala Asn Thr Pro Ala Ser Leu Val Gly Leu Arg Phe Gly  
 50 55 60  
 Asp Gln Leu Leu Gln Ile Asp Gly Arg Asp Cys Ala Gly Trp Ser Ser  
 65 70 75 80  
 His Lys Ala His Gln Val Val Lys Lys Ala Ser Gly Asp Lys Ile Val  
 85 90 95  
 Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys  
 100 105 110  
 Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val  
 115 120 125  
 Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn  
 130 135 140  
 His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp  
 145 150 155 160  
 Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu  
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 <211> 1187  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5164

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5164

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		20					25						30		
Arg	His	Trp	Ala	Trp	Ser	Gly	Asp	Thr	Phe	Ser	Gly	Gln	Phe	Val	Leu
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Gly	Glu	Pro	Gln	Gly	Tyr	Gly	Val	Met	Glu	Tyr	Lys	Ala	Gly	Gly	Cys
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Tyr	Glu	Gly	Glu	Val	Ser	His	Gly	Met	Arg	Glu	Gly	His	Gly	Phe	Leu
65				70				75						80	
Val	Asp	Arg	Asp	Gly	Gln	Val	Tyr	Gln	Gly	Ser	Phe	His	Asp	Asn	Lys
		85					90						95		
Arg	His	Gly	Pro	Gly	Gln	Met	Leu	Phe	Gln	Asn	Gly	Asp	Lys	Tyr	Asp
		100					105						110		
Gly	Asp	Trp	Val	Arg	Asp	Arg	Arg	Gln	Gly	His	Gly	Val	Leu	Arg	Cys
	115					120						125			
Ala	Asp	Gly	Ser	Thr	Tyr	Lys	Gly	Gln	Trp	His	Ser	Asp	Val	Phe	Ser

130	135	140			
Gly Leu Gly Ser Met Ala His Cys Ser Gly Val Thr Tyr Tyr Gly Leu					
145	150	155	160		
Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu					
	165	170	175		
Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn					
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Val Gln Leu Leu Gln Asp His Gly Glu Ile Ala Lys Ser Lys His Leu					
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Gln Gly Glu Met Thr					
210					

&lt;210&gt; 5165

&lt;211&gt; 2370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5165

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&lt;210&gt; 5166

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5166

Met Asp Pro Ala Gly Ala Ala Asp Pro Ser Val Pro Pro Asn Pro Leu

1

5

10

15

Thr His Leu Ser Leu Gln Asp Arg Ser Glu Met Gln Leu Gln Ser Glu

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His	Thr	Thr	Ile	Leu	Arg	Gly	Gly	Val	Arg	Arg	Cys	Leu	Gln	Gln	Gln					
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Cys	Glu	Gln	Thr	Val	Arg	Ile	Leu	His	Ala	Lys	Val	Ala	Gln	Lys	Ser					
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Ser	Gly	Pro	Gly	Trp	Arg	Val	Lys	Pro	Gly	Gln	Asp	Gln	Ala	His	Gln					
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Pro	Asp	Ser	Arg	Glu	Phe	Gly	Cys	Ala	Lys	Thr	Leu	Tyr	Ile	Ser	Asp					
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Thr	Val	Ser	Thr	Arg	Tyr	Leu	Ser	Val	Glu	Asp	Gly	Ala	Phe	Val	Ala					
225	230										235					240				
Ser	Ala	Arg	Gln	Trp	Ala	Ala	Phe	Thr	Leu	His	Leu	Ala	Asp	Gly	His					
245										250					255					
Ser	Ala	Gln	Gly	Asp	Phe	Pro	Pro	Arg	Glu	Gly	Tyr	Val	Arg	Tyr	Gly					
260										265					270					
Ser	Leu	Val	Gln	Leu	Val	Cys	Thr	Val	Thr	Gly	Ile	Thr	Leu	Pro	Pro					
275										280					285					
Met	Ile	Ile	Arg	Lys	Val	Ala	Lys	Gln	Cys	Ala	Leu	Leu	Asp	Val	Asp					
290										295					300					
Glu	Pro	Ile	Ser	Gln	Leu	His	Lys	Cys	Ala	Phe	Gln	Phe	Pro	Gly	Ser					
305	310										315					320				
Pro	Pro	Gly	Gly	Gly	Gly	Thr	Tyr	Leu	Cys	Leu	Ala	Thr	Glu	Lys	Val					
325										330					335					
Val	Gln	Phe	Gln	Ala	Ser	Pro	Cys	Pro	Lys	Glu	Ala	Asn	Arg	Ala	Leu					
340										345					350					
Leu	Asn	Asp	Ser	Ser	Cys	Trp	Thr	Ile	Ile	Gly	Thr	Glu	Ser	Val	Glu					
355										360					365					
Phe	Ser	Phe	Ser	Thr	Ser	Leu	Ala	Cys	Thr	Leu	Glu	Pro	Val	Thr	Pro					
370										375					380					
Val	Pro	Leu	Ile	Ser	Thr	Leu	Glu	Leu	Ser	Gly	Gly	Gly	Asp	Val	Ala					
385	390										395					400				
Thr	Leu	Glu	Leu	His	Gly	Glu	Asn	Phe	His	Ala	Gly	Leu	Lys	Val	Trp					
405										410					415					
Phe	Gly	Asp	Val	Glu	Ala	Glu	Thr	Met	Tyr	Arg	Tyr	Gly	Val	Xaa	Ser					
420										425					430					
Pro	Arg	Ser	Leu	Val	Cys	Val	Val	Pro	Asp	Val	Ala	Ala	Phe	Cys	Ser					
435										440					445					
Asp	Trp	Arg	Trp	Leu	Arg	Ala	Pro	Ile	Thr											

450		455		460															
Arg	Ala	Asp	Gly	Leu	Phe	Tyr	Pro	Ser	Ala	Phe	Ser	Phe	Thr	Tyr	Thr				
465					470					475					480				
Pro	Glu	Tyr	Ser	Val	Arg	Pro	Gly	His	Pro	Gly	Val	Pro	Glu	Pro	Ala				
				485					490						495				
Thr	Asp	Ala	Asp	Ala	Leu	Leu	Glu	Ser	Ile	His	Gln	Glu	Phe	Thr	Arg				
			500					505					510						
Thr	Asn	Phe	His	Leu	Phe	Ile	Gln	Thr											
		515				520													

<210> 5167  
 <211> 878  
 <212> DNA  
 <213> Homo sapiens

<400> 5167  
 gggccccgga ccaggcgctg gggacacagc agtgaaaata ctaacattgt ttctgccttc  
 60  
 acggagctca cagtgttaaca gggagacaaa tagacctgtc agtagataac atgaaaataa  
 120  
 ttggactgtg tgctgcagac acaatatccc aggtctatga gaatgtcaat acagacttca  
 180  
 cgtgggaaat ggtgaggcaa taaggatcgt ttcccttgat gaaatggagc ttgcagaaga  
 240  
 aggcagggtc agttgtgggg agctctgggt ggaggtggag ggagtgcatt ccaagctgag  
 300  
 ccaagctatg acacctgagt ttccctgcctc tgtgctgcct ccctgttttc cattcccggg  
 360  
 tctcagcttc acttgtgggc tgagagtccc tgcgtgggtt atttttctgc ctttctcagg  
 420  
 gccttgggtt ccccaaagt cacaatgggc cagtaacacc catgtcctag ggttgaagat  
 480  
 ggcattgat gatgtatgta aaatgcttgg cacaagggtt ctcaccgaag tctggaggag  
 540  
 ctgtccaggg ttctggagac gaaacggagc ccgctgggaa ctgtcctgag ccccggtgct  
 600  
 gaaacagatc gcggttctct tctcggacct cccgagaggc gctgtccgga tatttgggtg  
 660  
 tcccagcag tcagccctgc tgggtctctgc tttccagacc gtcaaacttc gccatctctg  
 720  
 tccctttttg ggaaaatgtc catgcgccaa cctgcaaacc agcctcattc ccggcatccc  
 780  
 acgtccctca gaccaccct cctccacgc agctgcggga ctccccctct gtgtgcctca  
 840  
 cctgcttcca gtcttgttgg cagatgcagg tgtcccg  
 878

<210> 5168  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 5168  
 Met Pro Gly Met Arg Leu Val Cys Arg Leu Ala His Gly His Phe Pro

1	5	10	15
Lys Lys Gly Gln Arg Trp Arg Ser Leu Thr Val Trp Lys Ala Glu Thr			
	20	25	30
Ser Arg Ala Asp Cys Leu Gly Ala Pro Asn Ile Arg Thr Ala Pro Leu			
	35	40	45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln			
	50	55	60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu			
65	70	75	80
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser			
	85	90	95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys			
	100	105	110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His			
	115	120	125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys			
	130	135	140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu			
145	150	155	160
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu			
	165	170	175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu			
	180	185	190
Ile Ala Ser Pro Phe Pro Thr			
	195		

<210> 5169  
 <211> 609  
 <212> DNA  
 <213> Homo sapiens

<400> 5169  
 accggtggct ttgcactcta cccgctgctc aacgaggctg cgccgttggc gctggggggcc  
 60  
 ggtttggtgc ctgaggagct gccaccatcc cgcgggggcc tgggtgaggc actgggtgcc  
 120  
 gtggagctta gcctcagcga gttectgcta ctcttcacca ctgctggcat ctacgtggat  
 180  
 ggcgcaggcc gcaagtctcg tggccacgag ctgttggtggc cagcagcgcc catgggctgg  
 240  
 gggatatgcgg cccctacct gacagtgttc agcgagaact ccatcgatgt gtttgacgtg  
 300  
 aggagggcag aatgggtgca gaccgtgccg ctcaagaagg tgcggcccct caatccagag  
 360  
 ggctccctgt tcctctacgg caccgagaag gtccgcctga cctacctcag gaaccagctg  
 420  
 gcagagaagg acgagttcga catcccggac ctcaccgaca acagccggcg ccagctgttc  
 480  
 ctaccaaga gcaagcgccg cttctttttc cgcggtgctcg aggagcagca gaagcagcag  
 540  
 cgcagggaga tgctgaagga cccttttgtg cgctccaagc tcatctcgcc gcctaccaac  
 600  
 ttcaaccac  
 609

<210> 5170  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 5170  
 Thr Gly Gly Phe Ala Leu Tyr Pro Leu Leu Asn Glu Ala Ala Pro Leu  
 1 5 10 15  
 Ala Leu Gly Ala Gly Leu Val Pro Glu Glu Leu Pro Pro Ser Arg Gly  
 20 25 30  
 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe  
 35 40 45  
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg  
 50 55 60  
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp  
 65 70 75 80  
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp  
 85 90 95  
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys  
 100 105 110  
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr  
 115 120 125  
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp  
 130 135 140  
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe  
 145 150 155 160  
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln  
 165 170 175  
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser  
 180 185 190  
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His  
 195 200

<210> 5171  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 5171  
 gaacagaggg ggtggaaact gcatcacaga tggtttccaa ggtccagggt ggaatctgag  
 60  
 ctctagtgtc tgactttgag atgcattata tttttaacac ataaatgagg ggaatccatat  
 120  
 cacattcttt cttgtggacc accaaattga aggccttctt gtaattcaca agcagcagct  
 180  
 ctccagcatc tctccgtagc ctgggtgaag tcccagaagc tgggtgtgcat cattttccaa  
 240  
 ggtggcagag ctgcttgctc tgcagatcat tcctttgaga gaggagtaca agtgaagaaa  
 300  
 caaggaggca cttcctgtag gagcaactgat gtgccttgct cacactcccc tctgagcttt  
 360  
 actggtaaga gagctccgac tgaacatgct gagcagttga gcacttttcc atcagcaaca  
 420

acagcgagga tggaaatgga aaggaaccga actaaaatgc atttcccttt gcagggcaga  
480  
gagctaagct cttaggaata gtgttataga aataagcacc ctaacttcaa ttcctgaaaa  
540  
tgttgggttaa tggagagaat tttggagttt cacttaatat tttcccatcg gtcgccataa  
600  
ataagtcttc aggcgctcct agaagagtcc cagcccaagg ctcgattaag gaccacactg  
660  
caggtctgag gctcactgct ctgagtcctg aacaccagag ccctgcagag agtggtgata  
720  
acacatcatc tctgcaaaga ggaacctctc ccccgccgc cacttcactc aggcttctac  
780  
tgagcagcaa ggacagcctg ggtttcaaat gccacttccc ctgctttagg gatccaggtg  
840  
tcctgatagc gtgaccctgc tgaggcaagg tatcaactcc gagagtgact gagtcactga  
900  
gcgtggcaca tgaacaaacg tcatgacaaa gattctctga gtgaagttaa caccacgtat  
960  
tttacctttg caaaaaacaa actggcaccc tgagttctaa ctacggacgg acgatatctt  
1020  
tgctccaca ccagattcc tggaaatggc taacgtttcc tttctagggg aagggtcgag  
1080  
gaatactcaa gtgctagctt agcagctttg ttcagtccag atcagagctg ttaggtaaa  
1140  
gcctaaccac ctccctgcag tctcttatat ctcaagcttt aggaacccat ttctaaatgt  
1200  
acactagcgg agaatttata ttgtcagcct tgattaccat aggacaggca gaaaggcgat  
1260  
aatttgatc ttttaataa aaagaagctt ttaacttttc cagcctatta ttataactga  
1320  
gttatattca ctgtggctca aactaattgg cattgtggaa catttcttta ccttcaaagt  
1380  
ttctccacc aatcatttca gttctattgc agtcctggtg ccatatgtcc cctgcaaatt  
1440  
gtgaaagtaa ttagtgacaa aatagcagcc tgctcctttt caatggcgaa actgtcggca  
1500  
ttagcagttt tgggtaagct ggcggtacta taacacgtac tggaaacctg ttcctcatca  
1560  
ccacctacca gattctggaa atgccgtctt ctagaaaacg atggcgtttg tgggtggtctt  
1620  
cttttgaaag gaacagtaat ttgtgtggat attgttaaag tgtttaaaga atattttgac  
1680  
aattaagttt acattttaca attgctttat tttttattaa aatagttgta tataaatatt  
1740  
accctatttc actgttgttc aagtaaactt aaaccttgta gacaagtga tcacctgata  
1800  
tgtatagaag ctgtgatata tagagtacat ttattgtgta aatgtttatg aatataattg  
1860  
ttcctgtgtt tttataagtt ggggatattt tggtgtttta cggcaacaaa atttattgca  
1920  
tttaaatggt ttttatgtaa tagaaatcac gcaaaatagt gaaggattta aaatatgtat  
1980  
atgatacatg taaatgtaca aacttttagaa agaaataaat ccaacaaatt tcaaaaaaaaa  
2040

aaaaaaaaaa aaaaaaaaaa  
2060

<210> 5172  
<211> 104  
<212> PRT  
<213> Homo sapiens

<400> 5172  
Met Leu Val Asn Gly Glu Asn Phe Gly Val Ser Leu Asn Ile Phe Pro  
1 5 10 15  
Ser Val Ala Ile Asn Lys Ser Ser Gly Ala Pro Arg Arg Val Pro Ala  
20 25 30  
Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu  
35 40 45  
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser  
50 55 60  
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu  
65 70 75 80  
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe  
85 90 95  
Arg Asp Pro Gly Val Leu Ile Ala  
100

<210> 5173  
<211> 557  
<212> DNA  
<213> Homo sapiens

<400> 5173  
ctttgatgcc ttatttgatt caacacatgc ttattatatg cttgctgtgt gccgggcccc  
60  
agaccaggcg ctggagacac agcagtgaaa atactaacat tgtttctgcc ctcacggagc  
120  
tcacagtgtg acagggagac aaatagacct gtcagtagat aacatgaaaa taattggact  
180  
atgtgctgca gacacaatat cccaggtcta tgagaatgtc aatacagact tcacgtggga  
240  
aatggtgagg caataaggat cgtttccctt gatgaaatgg agcttgcaga agaaggcagg  
300  
gtcagttgtg gggagctctg gttggaggtg gagggagtgc attccaagct ggaggagctg  
360  
tccagggttc tggagactaa acggagcccc ctgggaactg tcctgagccc cgggtgctgaa  
420  
acagatcgcg gttctcttct cggacctccc gagaagcgct gtccggatat ttggtgctcc  
480  
caagcagtca gccctgctgg tctctgcttt ccagaccggc aaacttcgcc gtctctgtcc  
540  
ctttctggga aaatggc  
557

<210> 5174  
<211> 93  
<212> PRT

<213> Homo sapiens

<400> 5174

```

Met Glu Leu Ala Glu Glu Gly Arg Val Ser Cys Gly Glu Leu Trp Leu
 1           5           10           15
Glu Val Glu Gly Val His Ser Lys Leu Glu Glu Leu Ser Arg Val Leu
          20           25           30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
          35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
          50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65           70           75           80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
          85           90

```

<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

```

ccatggcagc tccagagacc aggtggaggg gaaatcaccc cacgctcccg agcagagagc
60
ttcggagcca gccagcctca ctgtgcgtgg cccacaacag ctgtctccat gtgtcacgtg
120
agggctgccc aacaccaggt agggcagcaa cgcccacgcc ctgcccgggc acagcctccc
180
agaggtcact gccatgccgc actgaccgga gagagggcag tggtgagagg tgcatgccac
240
cccaggcttg ttccgaaggc cnnnnnnncc nc
272

```

<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

```

Met Ala Ala Pro Glu Thr Arg Trp Arg Gly Asn His Pro Thr Leu Pro
 1           5           10           15
Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
          20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
          35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
          50           55           60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65           70           75           80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
          85           90

```

<210> 5177

<211> 637



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5177

```

ntcctagtga gtatcgagtt ggtcttatta tcgctgaac tgggagcctt tgtttcctgc
60
gtgtcgcagg aagtgcggtt tcgggtacag ccgctaccag agtccctttc tcgcgaggcg
120
gaagaacccc gatcgctgag gagcaagggg gcgctaggaa agggaaactgg gttgcgacgg
180
tccggcgaga gagagctggg gtgctggggg gcggggaagt tggggagcag aggccgcttg
240
gtgtccgagt agggtaagac cgcaccgacc cagtccgtta ggaaagaagg gaaacgaggc
300
aattgtcggg cggatccccg gacggagggc taaggttgtg tggaaggcgc tgctccccgg
360
atggcgaccg cagatactcc ggccccggcc tccagtggcc tctcgccgaa ggaagaaggg
420
gagcttgaag atggggaaat cagtgcgac gataataaca gccagatacg gagtcggagc
480
agcagcagca gcagcggcgg cgggctgtta ccctatccgc ggccaaggcc tcctcactcg
540
gcccggggcg gtggatctgg cggaggcggg ggctcttctt cgtcatcgtc ctcttctcag
600
cagcagctga ggaatttctc acgctcgcgg cagcgt
637

```

&lt;210&gt; 5178

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5178

```

Met Ala Thr Ala Asp Thr Pro Ala Pro Ala Ser Ser Gly Leu Ser Pro
 1          5          10          15
Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
          20          25          30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Gly Gly Gly
 35          40          45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
 50          55          60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
65          70          75          80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
          85          90

```

&lt;210&gt; 5179

&lt;211&gt; 1527

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5179

```

ggaacacagg ccatgccgcc tcctctctct tgggattacc accagtgcac ctggaactat
60

```

gaagttgagc cggatgtaaa agcagtggat gcagggtttg atgggcatga cattccttat  
 120  
 gatgccatgt ggctggacat agagcacact gagggcaaga ggtacttcac ctgggacaaa  
 180  
 aacagattcc ctaaccccaa gaggatgcaa gagctgctca ggaacaaaaa gcgtaagctt  
 240  
 gtggatcatca gtgatcccca catcaagatt gaacctgact actcagtata tgtgaaggcc  
 300  
 aaagatcagg gcttctttgt gaagaatcag gaaggggaag actttgaagg ggtgtgttgg  
 360  
 ccaggtctct cctcttacct ggatttcacc aatcccaagg tcagagagtgt gtattcaagt  
 420  
 ctttttgctt tccctgttta tcagggatct acggacatcc tcttcctttg gaatgacatg  
 480  
 aatgagcctt ctgtcttttag agggccagag caaaccatgc agaagaatgc cattcatcat  
 540  
 ggcaattggg agcacagaga gctccacaac atctacggtt tttatcatca aatggctact  
 600  
 gcagaaggac tgataaaacg atctaaaggg aaggagagac cctttgttct tacacgttct  
 660  
 ttctttgctg gatcacaaaa gtatggtgcc gtgtggacag gcgacaacac agcagaatgg  
 720  
 agcaacttga aaatttctat cccaatgtta ctactctca gcattactgg gatctctttt  
 780  
 tgcggagctg acataggcgg gttcattggg aatccagaga cagagctgct agtgcgttgg  
 840  
 taccaggctg gagcctacca gcccttcttc cgtggccatg ccaccatgaa caccaagcga  
 900  
 cgagagccct ggctcttttg ggaggaacac acccgactca tccgagaagc catcagagag  
 960  
 cgctatggcc tcctgccata ttggtattct ctgttctacc atgcacacgt ggcttcccaa  
 1020  
 cctgtcatga ggctctgtg ggtagagttc cctgatgaac taaagacttt tgatatggaa  
 1080  
 gatgaatata tgctggggag tgcattattg gttcatccag tcacagaacc aaaagccacc  
 1140  
 acagttgatg tgtttcttcc aggatcaaat gaggtctggt atgactataa gacatttgct  
 1200  
 cattgggaag gaggggtgtac tgtaaagatc ccagtagcct tggacactat tccagtgttt  
 1260  
 cagcgagggtg gaagtgtgat accaataaag acaactgtag gaaaatccac aggctggatg  
 1320  
 actgaatcct cctagggact ccgggttgct ctaagcacta aggggttcttc agtgggtgag  
 1380  
 ttatatcttg atgatggcca ttcattccaa tacctccacc agaagcaatt tttgcacagg  
 1440  
 aagttttcat tctgttccag tgttctgata aatagttttg ctgaccagag gggtcattat  
 1500  
 ccagcaagt gtgtggtgga gaagatc  
 1527

&lt;210&gt; 5180

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5180

Gly Thr Gln Ala Met Pro Pro Pro Leu Ser Trp Asp Tyr His Gln Cys  
 1 5 10 15  
 Thr Trp Asn Tyr Glu Val Glu Pro Asp Val Lys Ala Val Asp Ala Gly  
 20 25 30  
 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu  
 35 40 45  
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro  
 50 55 60  
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu  
 65 70 75 80  
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val  
 85 90 95  
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly  
 100 105 110  
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp  
 115 120 125  
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe  
 130 135 140  
 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met  
 145 150 155 160  
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn  
 165 170 175  
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr  
 180 185 190  
 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser  
 195 200 205  
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly  
 210 215 220  
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp  
 225 230 235 240  
 Ser Asn Leu Lys Ile Ser Ile Pro Met Leu Leu Thr Leu Ser Ile Thr  
 245 250 255  
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro  
 260 265 270  
 Glu Thr Glu Leu Leu Val Arg Trp Tyr Gln Ala Gly Ala Tyr Gln Pro  
 275 280 285  
 Phe Phe Arg Gly His Ala Thr Met Asn Thr Lys Arg Arg Glu Pro Trp  
 290 295 300  
 Leu Phe Gly Glu Glu His Thr Arg Leu Ile Arg Glu Ala Ile Arg Glu  
 305 310 315 320  
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His  
 325 330 335  
 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp  
 340 345 350  
 Glu Leu Lys Thr Phe Asp Met Glu Asp Glu Tyr Met Leu Gly Ser Ala  
 355 360 365  
 Leu Leu Val His Pro Val Thr Glu Pro Lys Ala Thr Thr Val Asp Val  
 370 375 380  
 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala  
 385 390 395 400  
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

				405					410					415
Ile	Pro	Val	Phe	Gln	Arg	Gly	Gly	Ser	Val	Ile	Pro	Ile	Lys	Thr
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&lt;210&gt; 5181

&lt;211&gt; 4961

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5181

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&lt;210&gt; 5182

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5182

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<212> DNA
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4363

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&lt;210&gt; 5184

&lt;211&gt; 395

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5184

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 Ala Cys Ala Arg Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe  
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 Tyr Val Pro Glu Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr  
 180 185 190  
 Thr Glu Leu Val Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser  
 195 200 205  
 Gln Glu Ile Arg Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu  
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 Tyr Ser Asn Tyr Cys Lys Arg Gln Ala Gln Gln  
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&lt;210&gt; 5185

&lt;211&gt; 1657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5185

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acttctaate ataggcttgt aaacctacta ataggctctg cccctcttcc caatactttt  
1440  
tgtcatttag agatataaac cggggcatat aaaaatgcaa cttgtattcc tttgtatatt  
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1560  
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1657

&lt;210&gt; 5186

<211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 5186  
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 Thr Gly Asp Tyr Lys Ser Leu Lys Ile Leu Gly Leu Leu Glu Ile Ser  
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 Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro  
 35 40 45  
 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser  
 50 55 60  
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg  
 65 70 75 80  
 Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr  
 85 90 95  
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn  
 100 105 110  
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val  
 115 120 125  
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala  
 130 135 140  
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu  
 145 150 155 160  
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys  
 165 170 175  
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu  
 180 185 190  
 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp  
 195 200 205  
 Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser  
 210 215 220  
 Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ser Glu  
 225 230 235 240  
 Pro His Ser

<210> 5187  
 <211> 1712  
 <212> DNA  
 <213> Homo sapiens

<400> 5187  
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 cgaaacctag ccccggaaga gaagcgcagc aacgtgcggt gggaccacga gagcgtttgt  
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 aaatattatc tctgtgggtt ttgtcctgcg gaattgttca caaatacacg ttctgatctt  
 300

ggtccgtgtg aaaaaattca tgatgaaaat ctacgaaaac agtatgagaa gagctctcgt  
360  
ttcatgaaag ttggctatga gagagatttt ttgcgatact tacagagctt acttgcagaa  
420  
gtagaacgta ggatcagacg aggccatgct cgtttgcat tatctcaaaa ccagcagtct  
480  
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540  
attgatgtac ttctgcaaca gattgaagaa ttagggctctg aaggaaaagt agaagaagcc  
600  
caggggatga tgaaattagt tgagcaatta aaagaagaga gagaactgct aaggtccaca  
660  
acgtcgacaa ttgaaagctt tgctgcacaa gaaaaacaaa tggaagtttg tgaagtatgt  
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780  
caacacatgg gctatgccaa aattaaagct actgtagaag aattaaaaga aaagttaagg  
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900  
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960  
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cgaagtagac actcaagccg aacatcagac agaagatgca gcaggctctg ggaccacaaa  
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1260  
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aaagttaatt atcctttttt tagggatttt gatgtcgttt cttttttttt ttaatacaaa  
1680  
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1712

&lt;210&gt; 5188

&lt;211&gt; 489

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5188

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Met Ile Ser Ala Ala Gln Leu Leu Asp Glu Leu Met Gly Arg Asp Arg
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Asn Leu Ala Pro Asp Glu Lys Arg Ser Asn Val Arg Trp Asp His Glu
      20           25           30
Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
      35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
      50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
      85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
      100           105           110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
      115           120           125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
      130           135           140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
145           150           155           160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
      165           170           175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
      180           185           190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
      195           200           205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
210           215           220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
225           230           235           240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
      245           250           255
Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Glu Arg Glu Arg Lys Arg
      260           265           270
Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
      275           280           285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
290           295           300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
305           310           315           320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His
      325           330           335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
      340           345           350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
      355           360           365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
370           375           380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
385           390           395           400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
      405           410           415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

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420 425 430  
 Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser  
 435 440 445  
 Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile  
 450 455 460  
 Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys  
 465 470 475 480  
 Leu Phe Gly Asn Tyr Arg Pro His Leu  
 485

<210> 5189  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<400> 5189  
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 120  
 aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat  
 180  
 gaagttaatc attccttaat tcctgtttat ttatatattca tttttgcttt ctttttactc  
 240  
 catgtgttat tcctacagaa gtcacaagtt aaatgttttt ggggaacttt gggggggggg  
 300  
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 323

<210> 5190  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5190  
 Met Ser His Cys Thr Trp Pro Gly Glu Ile Val Phe Ile Thr Tyr Asp  
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 Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn  
 20 25 30  
 Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser  
 35 40 45  
 Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu  
 50 55 60  
 Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys  
 65 70 75 80  
 Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His  
 85 90 95  
 Pro Cys Ala Ala  
 100

<210> 5191  
 <211> 1632  
 <212> DNA  
 <213> Homo sapiens



<400> 5191  
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cgggtcatcg gggagcccct tcccagccc cgcaaacacc tgcattgaaa gaggcaggct  
120  
tccttctgac agcagataac atgtcgctcg cggcgtcagc aagaggcgca tgcgccttgc  
180  
cgtgggaggc cgggtgcgca ggactggaac gcggttcctc cttcttcccc gcccgcctc  
240  
gcttccggcg gaagcggcct caacaaggga aactttattg ttcccgtggg gcagtcgagg  
300  
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360  
ccggagatct tcgaccccc ggaggagctg gagcggaagg tgtgggaact ggcgaggctg  
420  
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480  
atccccgact tcaggggtcc ccacggagtc tggaccatgg aggagcgagg tctggcccc  
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780  
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840  
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900  
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1140  
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1200  
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1260  
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1320  
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1380  
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1440  
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 1620  
 aagtggggga tc  
 1632

<210> 5192  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 5192  
 Met Ser Val Asn Tyr Ala Ala Gly Leu Ser Pro Tyr Ala Asp Lys Gly  
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 Lys Cys Gly Leu Pro Glu Ile Phe Asp Pro Pro Glu Glu Leu Glu Arg  
 20 25 30  
 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val  
 35 40 45  
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe  
 50 55 60  
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro  
 65 70 75 80  
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met  
 85 90 95  
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser  
 100 105 110  
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys  
 115 120 125  
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys  
 130 135 140  
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys  
 145 150 155 160  
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala  
 165 170 175  
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His  
 180 185 190  
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu  
 195 200 205  
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp  
 210 215 220  
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn  
 225 230 235 240  
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn  
 245 250 255  
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly  
 260 265 270  
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu  
 275 280 285  
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro  
 290 295 300  
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro  
 305 310 315 320  
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys  
 325 330 335  
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

	340		345		350
Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg					
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Phe Arg Glu Glu Ala Thr Pro Gln Arg					
	370		375		

<210> 5193  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

<400> 5193  
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 120  
 cagcagctct gtgtcccggc atggccactg tggggcagag acacagcagg tcccatctct  
 180  
 ctgtgccctg cagaccgctc agccctgggg atgctgggtct gggacggacc cctagatatc  
 240  
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 300  
 gcagaattct cagggtggat ttccagcaac gcctcctggg agggtcagca ggggctgggg  
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 420  
 cgcttggtcca gcctcatcca gcctggtgtc tccggtgcca cgcgctaaca ccttcagtgc  
 480  
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 540  
 tgccagcacc cggg  
 554

<210> 5194  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 5194  
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 Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp  
 20 25 30  
 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly  
 35 40 45  
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg  
 50 55 60  
 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala  
 65 70 75 80  
 Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg  
 85 90

<210> 5195  
 <211> 964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5195

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120
ctgcgggccc tccagcggct gtgccacttc tacagcgccg tcatgcccag cgaggcccag
180
tgtgtcatct accatgagct ccagctctcc ctggcctgca aggtggccga caaggtgctg
240
gagggggcagc tcctggagac catcagccag ctctacctgt ccctgggcac cgagcggggc
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gaggagcccc aggagggcct ggagtttgcc cacatggccc tagcactcag catcactctg
720
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840
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900
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960
gccg
964

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&lt;210&gt; 5196

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5196

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Met Pro Ser Glu Ala Gln Cys Val Ile Tyr His Glu Leu Gln Leu Ser
1           5           10           15
Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu
20           25           30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
35           40           45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
50           55           60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65		70		75		80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val						
	85		90		95	
Ala Gln Asn Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu						
	100		105		110	
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg						
	115		120		125	
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val						
	130		135		140	
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val						
	145		150		155	
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala						
	165		170		175	
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu						
	180		185		190	
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His						
	195		200		205	
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn						
	210		215		220	
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr						
	225		230		235	
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp						
	245		250		255	
Ala Ala Gly Tyr Tyr Gln Leu Ala Leu Ala Ala						
	260		265			

&lt;210&gt; 5197

&lt;211&gt; 1045

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5197

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natgttggtc aggctggtct caaactcctg acctcgtgat ccgcccacct cagcctcgca
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120
ctcatgatcc gccacctca gcctcgcaaa gtgctgggat tacaggcatg agccaccacg
180
tccggccacc actgactttt tcattctttc tcattcttcc tgggccctcc tgctgttgta
240
ggcccccatg aagaagtgga ctattctgag aaactgaagt tcagtgatga tgaagaggag
300
gaagaagttg tgaaggacgg caggccaaag tggaacagtt gggaccctag gaggcagcgg
360
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420
gactgggctg aagcagtggg tgcgtcccgt gtggtccgaa aggcgccaga ccctcagcca
480
ccgccagga agcttcatgg ctgggcacca ggccctgact accagaagtc atcaatgggc
540
agcatgttcc ggcaacagtc catcgaggac aaggaggaca agccccacc aaggcagaag
600
ttcattcagt cagagatgtc cgaggcgggtg gagcgagccc gaaagcgccg ggaagaagag
660

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 720  
 cagaagtgtg agcaggcacg aaaggcaggt gagggccgga agcaggcaga gaaggaagtg  
 780  
 cctgtgtctc caagtgtgta gaaggcatct cccagggaaa acggccctgc tgtccacaaa  
 840  
 ggctccccag aattccctgc ccaagagacc cccaccacat tcccagaaga ggcaccaca  
 900  
 gtgtccccag cagtggcaca gagcaacagc agtgaggaag aggccagaga ggctgggtcc  
 960  
 cctgcacagg agttcaagta tcagaagtcc cttcctcccc gattccagcg ccagcagcag  
 1020  
 caacaacagc aggagcagct gtaca  
 1045

<210> 5198

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5198

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&lt;210&gt; 5204

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5204

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Asp	Leu	Val	Glu	Tyr	Phe	Lys	Ala	Tyr	Ile	Lys	Ile	Tyr	Gln	Gly	Glu
		20						25					30		
Glu	Leu	Pro	His	Pro	Lys	Ser	Met	Leu	Gln	Ala	Thr	Ala	Glu	Ala	Asn
		35					40					45			
Asn	Leu	Ala	Ala	Val	Ala	Gly	Ala	Arg	Asp	Thr	Tyr	Cys	Lys	Ser	Met
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Glu	Gln	Val	Cys	Gly	Gly	Asp	Lys	Pro	Tyr	Ile	Ala	Pro	Ser	Asp	Leu
65				70					75					80	
Glu	Arg	Lys	His	Leu	Asp	Leu	Lys	Glu	Val	Ala	Ile	Lys	Gln	Phe	Arg
			85					90					95		
Ser	Val	Lys	Lys	Met	Gly	Gly	Asp	Glu	Phe	Cys	Arg	Arg	Tyr	Gln	Asp

	100		105		110	
Gln	Leu	Glu	Ala	Glu	Ile	Glu
	115		120		125	
Asn	Asp	Gly	Lys	Asn	Ile	Phe
	130		135		140	
Phe	Ala	Val	Met	Phe	Ala	Met
145			150		155	
Ile	Gly	Leu	Asn	Ser	Ile	Ala
			165		170	
Ala	Leu	Ile	Phe	Leu	Cys	Thr
	180		185		190	
Phe	Arg	Glu	Ile	Gly	Thr	Val
	195		200		205	
Glu	Gln	Val	Leu	Lys	Pro	Leu
	210		215		220	
Arg	Gln	Ser	Val	Thr	Asn	Ser
225			230		235	
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&lt;210&gt; 5205

&lt;211&gt; 2011

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5205

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 2011

&lt;210&gt; 5206

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5206

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Val	Ala	Lys	Ala	Phe	Arg	Val	Lys	Ser	Asn	Thr	Ala	Ile	Lys	Gly	Ser
			20					25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
			35				40					45			
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn



50					55					60					
Ile	Val	Lys	Leu	Tyr	Ala	His	Lys	Gly	Asp	Ala	Val	Thr	Val	Tyr	Val
65					70					75					80
Ser	Gly	Gly	Asn	Pro	Ile	Leu	Phe	Glu	Leu	Glu	Lys	Asn	Leu	Tyr	Pro
				85					90					95	
Thr	Val	Tyr	Thr	Leu	Trp	Ser	Tyr	Pro	Asp	Leu	Leu	Pro	Thr	Phe	Thr
			100					105					110		
Thr	Trp	Pro	Leu	Val	Leu	Glu	Lys	Leu	Val	Gly	Gly	Ala	Asp	Leu	Met
		115					120					125			
Leu	Pro	Gly	Leu	Val	Met	Pro	Pro	Ala	Gly	Leu	Pro	Gln	Val	Gln	Lys
	130					135					140				
Gly	Asp	Leu	Cys	Ala	Ile	Ser	Leu	Val	Gly	Asn	Arg	Ala	Pro	Val	Ala
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Ile	Gly	Val	Ala	Ala	Met	Ser	Thr	Ala	Glu	Met	Leu	Thr	Ser	Gly	Leu
			165					170						175	
Lys	Gly	Arg	Gly	Phe	Ser	Val	Leu	His	Thr	Tyr	Gln	Asp	His	Leu	Trp
		180						185				190			
Arg	Ser	Gly	Asn	Lys	Ser	Ser	Pro	Pro	Ser	Ile	Ala	Pro	Leu	Ala	Leu
		195					200					205			
Asp	Ser	Ala	Asp	Leu	Ser	Glu	Glu	Lys	Gly	Ser	Val	Gln	Met	Asp	Ser
	210					215					220				
Thr	Leu	Gln	Gly	Asp	Met	Arg	His	Met	Thr	Leu	Glu	Gly	Glu	Glu	Glu
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Asn	Gly	Glu	Val	His	Gln	Gly	Thr								
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<210> 5207
<211> 594
<212> DNA
<213> Homo sapiens
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240
gccatcgtgc gccagttctt gtacaacgag ttcagcgagg tctgcgtccc caccaccgcc
300
cgccgccttt acctgcctgc tgtcgtcatg aacggccacg tgcacgacct ccagatcctc
360
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420
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480
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<210> 5208

<211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 5208

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Lys Ser Ala Ile Val Arg Gln Phe Leu Tyr Asn Glu Phe Ser Glu Val
      20             25             30
Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met
      35             40             45
Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
 50             55             60
Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
65             70             75             80
Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
      85             90             95
Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
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Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Ile Val Gly Asn
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Lys Arg Asp Leu Gln Arg Gly Arg
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<210> 5209  
 <211> 1592  
 <212> DNA  
 <213> Homo sapiens

<400> 5209

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720

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<210> 5210
<211> 85
<212> PRT
<213> Homo sapiens

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Leu Met Arg Ser Val Pro Asp Pro Ser Thr Arg Ala Leu Leu Leu Leu
          20           25           30
Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg
          35           40           45
Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln
          50           55           60
Val Glu Glu Leu Arg Trp Arg Gln Arg Arg Ala Ala Lys Gly Ala Arg
        65           70           75           80
Ser Val Glu Glu Glu
              85

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<210> 5211
<211> 602
<212> DNA
<213> Homo sapiens

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 300  
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 420  
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 480  
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<210> 5212  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 5212  
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 Thr Arg Gln Gln Val Phe Lys Asn Asp Ala Arg Ala Leu Glu Ala Ala  
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 Arg Ile Lys Ile Asn Glu Glu Phe Lys Asn Asn Lys Ser Glu Thr Ser  
 35 40 45  
 Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu  
 50 55 60  
 Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr  
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<210> 5213  
 <211> 4387  
 <212> DNA  
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 Lys Phe Ile His Gly Gln His Ser Pro Lys Arg Ile Ser Phe Leu Tyr

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<400> 5217

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<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

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Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
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4401

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<212> DNA  
<213> Homo sapiens

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240  
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300  
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360  
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420  
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480  
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1212

<210> 5220  
<211> 179  
<212> PRT  
<213> Homo sapiens



&lt;400&gt; 5220

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Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
 20           25           30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
 35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
 50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
 65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
 85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
 100          105          110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
 115          120          125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
 130          135          140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
 145          150          155          160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
 165          170          175
Ile Thr Gly

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&lt;210&gt; 5221

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5221

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180
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240
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&lt;210&gt; 5222

&lt;211&gt; 112

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5222

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		20					25					30			
Ser	Leu	Val	Asp	Gly	Arg	Ile	Ile	Asp	Thr	Ser	Leu	Thr	Arg	Asp	Pro
	35					40					45				
Leu	Val	Ile	Glu	Leu	Gly	Gln	Lys	Gln	Val	Ile	Pro	Gly	Leu	Glu	Gln
	50				55					60					
Ser	Leu	Leu	Asp	Met	Cys	Val	Gly	Glu	Lys	Arg	Arg	Ala	Ile	Ile	Pro
65				70				75						80	
Ser	His	Leu	Ala	Tyr	Gly	Lys	Arg	Gly	Phe	Pro	Pro	Ser	Val	Pro	Gly
			85					90					95		
Thr	Lys	Asp	Asn	Leu	Met	Arg	Pro	Pro	Gly	Met	Thr	Ser	Ser	Ser	Gln
			100					105					110		

<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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120
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180
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240
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300
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360
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420
gagagtcatg cccaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
480
ctcaggaagc caccaacaag aaaatcggca ttttcccacc tgcaatttct atctccagca
540
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637

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

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                     20                      25                      30  
 Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln  
                     35                      40                      45  
 Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr  
                     50                      55                      60  
 Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val  
 65                      70                      75                      80  
 Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His  
                     85                      90                      95  
 Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp  
                     100                      105                      110  
 Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys  
                     115                      120                      125  
 Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala  
                     130                      135                      140  
 Gln Thr Ser Thr  
 145

&lt;210&gt; 5225

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5225

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 240  
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 300  
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 394

&lt;210&gt; 5226

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5226

Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro  
 1                      5                      10                      15  
 Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg  
                     20                      25                      30  
 Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu  
                     35                      40                      45  
 Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

50		55		60											
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
65					70					75					80
Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
			85						90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
		100						105					110		
Pro															

&lt;210&gt; 5227

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5227

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 120  
 ggatgacggg catgccggca ggcaccgtgt agaaggccag tgtggtaacc ttacctgtct  
 180  
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 240  
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 720  
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 780  
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 840  
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 900  
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 ctacttcagt tgggagatat aattaaagaa gtcaatggcc atgaggttgg aaataatcca  
 1020  
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 1080  
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 1140

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 2340  
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&lt;210&gt; 5228

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5228

Arg	Leu	Gly	Val	Val	Glu	Ile	Gly	Arg	Ile	Pro	Gly	Gly	Ile	Trp	Glu
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Asn	Leu	Thr	Glu	Leu	Pro	Ser	Ser	Thr	Gly	Ala	Glu	Glu	Ile	Asp	Leu
			20					25					30		
Ile	Phe	Leu	Lys	Gly	Ile	Met	Glu	Asn	Pro	Ile	Val	Lys	Ser	Leu	Ala

Lys	Ala	Arg	Glu	Arg	Leu	Glu	Asp	Ser	Lys	Leu	Glu	Ala	Val	Ser	Asp	
	50					55					60					
Asn	Asn	Leu	Glu	Leu	Val	Asn	Glu	Ile	Leu	Glu	Asp	Ile	Thr	Pro	Leu	
65					70					75					80	
Ile	Asn	Val	Asp	Glu	Asn	Val	Ala	Glu	Leu	Val	Gly	Ile	Leu	Lys	Glu	
				85					90					95		
Pro	His	Phe	Gln	Ser	Leu	Leu	Glu	Ala	His	Asp	Ile	Val	Ala	Ser	Lys	
			100					105					110			
Cys	Tyr	Asp	Ser	Pro	Pro	Ser	Ser	Pro	Glu	Met	Asn	Asn	Ser	Ser	Ile	
		115						120				125				
Asn	Asn	Gln	Leu	Leu	Pro	Val	Asp	Ala	Ile	Arg	Ile	Leu	Gly	Ile	His	
	130					135					140					
Lys	Arg	Ala	Gly	Glu	Pro	Leu	Gly	Val	Thr	Phe	Arg	Val	Glu	Asn	Asn	
145					150					155					160	
Asp	Leu	Val	Ile	Ala	Arg	Ile	Leu	His	Gly	Gly	Met	Ile	Asp	Arg	Gln	
				165					170					175		
Gly	Leu	Leu	His	Val	Gly	Asp	Ile	Ile	Lys	Glu	Val	Asn	Gly	His	Glu	
			180					185					190			
Val	Gly	Asn	Asn	Pro	Lys	Glu	Leu	Gln	Glu	Leu	Leu	Lys	Asn	Ile	Ser	
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Gly	Ser	Val	Thr	Leu	Lys	Ile	Leu	Pro	Ser	Tyr	Arg	Asp	Thr	Ile	Thr	
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Pro	Gln	Gln	Val	Phe	Val	Lys	Cys	His	Phe	Asp	Tyr	Asn	Pro	Tyr	Asn	
225					230					235					240	
Asp	Asn	Leu	Ile	Pro	Cys	Lys	Glu	Ala	Gly	Leu	Lys	Phe	Ser	Lys	Gly	
				245					250					255		
Glu	Ile	Leu	Gln	Ile	Val	Asn	Arg	Glu	Asp	Pro	Asn	Trp	Trp	Gln	Ala	
			260					265				270				
Ser	His	Val	Lys	Glu	Gly	Gly	Ser	Ala	Gly	Leu	Ile	Pro	Ser	Gln	Phe	
	275						280					285				
Leu	Glu	Glu	Lys	Arg	Lys	Ala	Phe	Val	Arg	Arg	Asp	Trp	Asp	Asn	Ser	
	290					295					300					
Gly	Pro	Phe	Cys	Gly	Thr	Ile	Ser	Ser	Lys	Lys	Lys	Lys	Lys	Met	Met	
305					310					315					320	
Tyr	Leu	Thr	Thr	Arg	Asn	Ala	Glu	Phe	Asp	Arg	His	Glu	Ile	Gln	Ile	
				325					330					335		
Tyr	Glu	Glu	Val	Ala	Lys	Met	Pro	Pro	Phe	Gln	Arg	Lys	Thr	Leu	Val	
			340					345					350			
Leu	Ile	Gly	Ala	Gln	Gly	Val	Gly	Arg	Arg	Ser	Leu	Lys	Asn	Arg	Phe	
		355					360					365				
Ile	Val	Leu	Asn	Pro	Thr	Arg	Phe	Gly	Thr	Thr	Val	Pro	Phe	Thr	Ser	
	370															

465		470		475		480									
Val	Val	Asp	Ala	Gly	Ile	Thr	Thr	Lys	Leu	Leu	Thr	Asp	Ser	Asp	Leu
			485						490					495	
Lys	Lys	Thr	Val	Asp	Glu	Ser	Ala	Arg	Ile	Gln	Arg	Ala	Tyr	Asn	His
			500					505					510		
Tyr	Phe	Asp	Leu	Ile	Ile	Ile	Asn	Asp	Asn	Leu	Asp	Lys	Ala	Phe	Glu
		515					520					525			
Lys	Leu	Gln	Thr	Ala	Ile	Glu	Lys	Leu	Arg	Met	Glu	Pro	Gln	Trp	Val
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Pro	Ile	Ser	Trp	Val	Tyr										
545					550										

&lt;210&gt; 5229

&lt;211&gt; 1031

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5229

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<210> 5230  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Leu Val Leu Cys Gly Leu Arg Val Lys Lys Lys Arg Val Thr Arg Ser  
 35 40 45  
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser  
 50 55 60  
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys  
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 Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp  
 85 90 95  
 Cys Gln Arg Met Val Asp  
 100

<210> 5231  
 <211> 845  
 <212> DNA  
 <213> Homo sapiens

<400> 5231  
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 120  
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 360  
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 420  
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 480  
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 720  
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840

cttaa

845

<210> 5232

<211> 201

<212> PRT

<213> Homo sapiens

<400> 5232

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Leu Leu Ser Ala Ala Val Cys Arg Ala Glu Ala Gly Leu Glu Thr Glu
      20      25      30
Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu
      35      40      45
Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr
      50      55      60
Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg
65      70      75      80
Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu
      85      90      95
Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile
      100      105      110
Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val
      115      120      125
Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile
      130      135      140
Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val
145      150      155      160
Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu
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Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu
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Glu Lys Arg Asn Lys Ser Lys Lys Lys
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<210> 5233

<211> 2801

<212> DNA

<213> Homo sapiens

<400> 5233

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&lt;210&gt; 5234

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5234

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			20					25					30		
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys
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&lt;210&gt; 5235

&lt;211&gt; 3017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5235

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&lt;210&gt; 5236

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5236

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50	55	60	
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Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
85	90	95	
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
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Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
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Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
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Tyr Met Gln Lys Phe Gly Ala Val Tyr Lys Pro Lys Glu Asp Thr Glu			
165	170	175	
Leu Glu			

&lt;210&gt; 5237

&lt;211&gt; 1238

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5237

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&lt;210&gt; 5238

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5238

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			20					25					30		
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		35					40					45			
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Gly	Phe	Gly	Asn	Ala	Gly	Val	His	Leu	Cys	His	Gly	Met	Ser	Tyr	Pro
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Ile	Ser	Gly	Leu	Val	Lys	Met	Tyr	Lys	Ala	Lys	Asp	Tyr	Asn	Val	Asp
			85						90					95	
His	Pro	Leu	Val	Pro	His	Gly	Leu	Ser	Val	Val	Leu	Thr	Ser	Pro	Ala
			100						105					110	
Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu	Met
			115				120						125		
Ala	Glu	Ile	Leu	Gly	Ala	Asp	Thr	Arg	Thr	Ala	Arg	Ile	Gln	Asp	Ala
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Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala	Ser
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<210> 5239

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 5239

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<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

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			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40					45			
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Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
				85					90					95	
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
				100				105					110		
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
			115				120					125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
	130					135					140				
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
145					150					155				160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
				165				170						175	
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
				180				185					190		
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly



145

<210> 5243  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

<400> 5243  
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 tggctggacc ttacagacga gccatttggt cagaaggtaa ctgtggaccc tgacaactca  
 120  
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaacccaga  
 180  
 agtcttgcta taagattcat ccttaccaat tacaacaagt tgtccatcca gagttggttt  
 240  
 agtttgccc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact  
 300  
 ggcgatatg ctccctctgg ttactcctac cgctgccaac gcgt  
 344

<210> 5244  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 5244  
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 Lys Asn Gln Thr Trp Leu Asp Leu Thr Asp Glu Pro Phe Gly Gln Lys  
 20 25 30  
 Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg  
 35 40 45  
 Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile  
 50 55 60  
 Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe  
 65 70 75 80  
 Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val  
 85 90 95  
 Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys  
 100 105 110  
 Gln Arg

<210> 5245  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<400> 5245  
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 ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct cttcgtgggg  
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgagggtt gagtcctgct ggccggccct gatgaaggat  
 240  
 gctcatggag tggatgatcgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag  
 300  
 atgtggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt  
 360  
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg  
 420  
 aacaagctga agctggtgca ctcaaacctg gaagatgacc ctgaggagat ccgatggaa  
 480  
 ttc  
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens,

<400> 5246

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
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Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
			35				40					45			
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
			50			55					60				
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
65					70					75				80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
				85				90						95	
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
			100					105					110		
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
			115				120					125			
Met	Glu	Phe													
			130												

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 120  
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgaggatc ctagaatttg agaaccgcga tgttaccagc  
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggtggcga tgctaagttt  
300  
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct  
360  
gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg  
420  
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat  
480  
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctggtgca ctcaaacctg  
540  
gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac  
600  
tccatgtctg agagcagaga caggaggag atgtcaatta tgacctagcc agccttcacc  
660  
tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat  
720  
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa  
780  
ggcactgtc acacagggcg ttcactcaga ccactgtgct tctgccctga gttcagttga  
840  
gaaaatccta ttatcaaatt tggatttctt ggccccagaa cttcccaaag acctgtaaaa  
900  
tggagggatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg  
960  
cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa  
1004

&lt;210&gt; 5248

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35					40				45				
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
	50					55				60					
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65					70				75					80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
			85					90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
		100						105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
	115					120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
	130					135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145					150					155				160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

165 170 175  
 Asp Arg Glu Glu Met Ser Ile Met Thr  
 180 185  
 <210> 5249  
 <211> 653  
 <212> DNA  
 <213> Homo sapiens  
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 taccggggct ggctagtcac gggggagccc agtagagagg agtataaaat ccagtccttt  
 120  
 gatgcagaga cccagcagct gctgaagaca gcactcaaag atccgggtgc tgtggacttg  
 180  
 gagaaagtgg ccaatgtgat tgtggaccat tctctgcagg actgtgtgtt cagcaaggaa  
 240  
 gcaggacgca tgtgctacgc catcattcag gcagagagta aacaagcagg ccagagtgtc  
 300  
 ttccgacgtg gactcctcaa cgggctgcag caggagtacc aggctcggga gcagctgcga  
 360  
 gcacgctccc tgcagggctg ggtctgctat gtcaccttta tctgcaacat ctttgactac  
 420  
 ctgaggggtga acaacatgcc catgatggcc ctgggtgaacc ctgtctatga ctgcctcttc  
 480  
 cggctggccc agccagacag tttgagcaag gaggaggagg tggactgttt ggtgctgcag  
 540  
 ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcacatga tgagctcttt  
 600  
 gtgctgatcc gggatggctt cctgctccca actggcctca gtcacctgga cca  
 653

<210> 5250  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<400> 5250  
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 Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg  
 20 25 30  
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu  
 35 40 45  
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala  
 50 55 60  
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu  
 65 70 75 80  
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala  
 85 90 95  
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu  
 100 105 110  
 Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val

[illegible]

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<210> 5251
<211> 372
<212> DNA
<213> Homo sapiens
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<400> 5251
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caccacagcg ggacggcact tcattatgac gatgtcccggt gcatcaacgg ctcgggggaa
120
ccggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacaggcc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caaataccct
300
gcctctgctc agtctgtcac taatacctct tctgtgggga gggcgtctct cgggctcaac
360
tcgcagcctc ag
372
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<210> 5252
<211> 124
<212> PRT
<213> Homo sapiens
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<400> 5252																
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1				5					10					15		
Asn	Gly	Tyr	Ala	His	Pro	Ser	Gly	Thr	Ala	Leu	His	Tyr	Asp	Asp	Val	
			20					25					30			
Pro	Cys	Ile	Asn	Gly	Ser	Gly	Glu	Pro	Glu	Asp	Gly	Phe	Pro	Ala	Phe	
		35					40					45				
Cys	Ser	Arg	Ser	Leu	Gly	Glu	Gly	Ala	Phe	Glu	Asn	Pro	Gly	Leu		
	50				55					60						
Tyr	Asp	Asn	Trp	Pro	Pro	His	Ile	Phe	Ala	Arg	Tyr	Ser	Pro	Ala		
65				70					75					80		
Asp	Arg	Lys	Ala	Ser	Arg	Leu	Ser	Ala	Asp	Lys	Leu	Ser	Ser	Asn	His	
				85					90					95		
Tyr	Lys	Tyr	Pro	Ala	Ser	Ala	Gln	Ser	Val	Thr	Asn	Thr	Ser	Ser	Val	

100 105 110  
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln  
 115 120

<210> 5253  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

<400> 5253  
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 ccacagtgc tttccagtcc agcaaaggga aatctgggga gtctatactt tgctcacaac  
 120  
 tcatctcaat gccatccttg tggagagcca cagtgtagtg caaggttcca tccaattcac  
 180  
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggc  
 240  
 ctcaactctca gtggctgtga actccatcat gaggattctg actggaagca ctaggagcag  
 300  
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa  
 360  
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga  
 420  
 ggtgaagcag cagctaacc tagaaaaaaa ggactcagcc cagggcactg aggacgcacc  
 480  
 tgataacagc agcctggagc tcctagcaga taccagcggg caagcagaaa acaagaggct  
 540  
 caagaggggc agccccgc tagaggagat gcgagctctg cgctctgcca gggccccgag  
 600  
 cccgtcagag gccgccccgc gccgccccga agccaccgc gccccctca ctctagagg  
 660  
 aaggagcac cgcgaggctc acggcagggc cctggcgccg ggcagggcga gcctcggaag  
 720  
 ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtcc  
 780  
 cagccctggg ccctgagccg ggtccccttc cgcaagcgcc caccgatccg gaggctgcgg  
 840  
 gcagccgtta tcccgtggtt taataaagct gccgcgcgct caaaaaaaaa aaaaaaaaa  
 898

<210> 5254  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 5254  
 Gln Gln Pro Gly Ala Pro Ser Arg Tyr Gln Arg Ala Ser Arg Lys Gln  
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 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala  
 20 25 30  
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 35 40 45  
 Ser His Arg Gly Pro Pro His Ser



50

55

<210> 5255  
<211> 1410  
<212> DNA  
<213> Homo sapiens

<400> 5255  
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caaccccaaga tccccatgcc tcgagccctg gatctccaag ctgagctgct ggattctgga  
120  
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca  
180  
tactggatc ccagatcccc tactccacc cactggattc ctgcattggt ttttggtttt  
240  
ttgttttttt ttaacctcga cactgggtct cagatccttc tgctgactgc cagatccctg  
300  
catttcaagc actacgcctt ccacccccag gcactggatc ccagattccc aagccttcac  
360  
ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc  
420  
tggaactgc agctgctgga ttccagattc tgggtcccca atccctctgc ccagtccctc  
480  
aatgttgaaa cctcatctct tgaaggcaga tcctgatatt ccaaggcact gaatcccaag  
540  
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600  
ccaagtctag atcctggcag ccagtcaca gagtatccca cacacactgg tgcccagagc  
660  
cggtttctca tgacatgaaa ttgcatggtc gagggagtct gtggggaagg aagcccaggt  
720  
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780  
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840  
ttcacagcat cttccatccc cctccacct tctaggcgaa tagtcccag agctgtgttc  
900  
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960  
agggacacat gaagggatgt cccacccca gcactatcag ggctcccca ggcttcaga  
1020  
gttgaaagcc aggagaaaat cggcaaagac cacccttccc taaaccaag cacccaatga  
1080  
tgcaaaaaac aaaaacaaaa aaaaccacca aatccccaaa ttcattccag atctattttt  
1140  
ctaccagaga gaggagcaaa gtccctctcc cctgcgcct tacattctgc acttcatagt  
1200  
tggattctga gcttaggatc atctggagac cccatggagg gacttggaaa ggggaactgg  
1260  
gatttgggga ggggctggag gacttccgca cgcttcacc tccttcgacc tccactgcgc  
1320  
cccacctccc tgctgtgtg tgttatttca aaggaaaaga acaaaaggaa taaattttct  
1380

aagctcttta aaaaaaaaaa aaaaaaaaaa  
1410

<210> 5256  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 5256  
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Leu His Gly Cys Trp Ile Pro Pro His Pro Thr Ser Ala Trp Pro Pro  
20 25 30  
Pro Pro Ser Pro Val Gly Lys Leu Phe Pro Gly Thr Thr Pro Leu Pro  
35 40 45  
Ala Ser Pro His Phe Thr Ala Ser Ser Ile Pro Leu Pro Pro Ser Arg  
50 55 60  
Arg Ile Val Pro Arg Ala Val Phe Leu Gln Gly Val Arg Gly Ile Thr  
65 70 75 80  
His Ser Trp Arg Leu Ala Arg Arg Gln Ser Glu Ala Arg Asp Thr  
85 90 95

<210> 5257  
<211> 1366  
<212> DNA  
<213> Homo sapiens

<400> 5257  
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accccgcccc gcagtggcgg gggcctgctc ccagcttctg gctgtcacgg acctgccgcc  
120  
tcctcctact ccgcatccgc cgagcctgcc cgggtccgcg gccttgtcta tgggcaccac  
180  
gggatccag ccaaggctgt cgaactcaag aacctggagc tagctgctgt gagaggatca  
240  
gatgtccgtg tgaagatgct ggcggcccct atcaatccat ctgacataaa tatgatccaa  
300  
ggaaactacg gactccttcc tgaactgcct gctgttgagg ggaacgaagg tggtgcacag  
360  
gtggtagcgg tgggcagcaa tgtgaccggg ctgaagccag gagactgggt gattccagca  
420  
aatgctggtt tagactcagg aacctggcgg accgaggctg tgttcagcga ggaagcactg  
480  
atccaagttc cgagtgcacat ccctcttcag agcgctgccca ccctgggtgt caatccctgc  
540  
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aatgcatcca acagcggagt ggggcaagca gtcattccaga tcgccgcagc cctgggccta  
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agaaccatca atgtgggtccg agacagacct gatattccaga agctgagtga cagactgaag  
720  
agtctggggg ctgagcatgt catcacagaa gaggagctaa gaaggcccga aatgaaaaac  
780

ttctttaagg acatgccccca gccacggctt gctctcaact gtgttggtgg gaaaagctcc  
 840  
 acagagctgc tgcggcagtt agcgcgtgga ggaacatgg taacctatgg ggggatggcc  
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 960  
 ttttggttgt cccagtggaa gaaggatcac agtccagacc agttcaagga gctgacctc  
 1020  
 aactgtgcg atctcatccg ccgaggccag ctcacagccc ctgcctgctc ccaggtcccc  
 1080  
 ctgcaggact accagtctgc cttggaagcc tccatgaagc ccttcatatc ttcaaagcag  
 1140  
 attctcacca tgtgatcatc ccaaaagagc tggagtgaaca tgggagggga ggcggatctg  
 1200  
 aggggctggg tgcaggcccc tcagttgggg ctcccacctt cccagacta ctgttctct  
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 cactgcctct tcctattagg aggatggtga agccagccac ggttttcccc agggccagcc  
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 ttaaggtatc taataaagtc tgaactctcc cttccaaaaa aaaaaa  
 1366

&lt;210&gt; 5258

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5258

Met	Trp	Val	Cys	Ser	Thr	Leu	Trp	Arg	Val	Arg	Thr	Pro	Pro	Gly	Ser
1				5					10					15	
Gly	Gly	Gly	Leu	Leu	Pro	Ala	Ser	Gly	Cys	His	Gly	Pro	Ala	Ala	Ser
			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35					40					45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
		50				55					60				
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65					70					75					80
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
			85					90						95	
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
			100					105					110		
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
			115				120						125		
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
			130			135						140			
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145					150					155					160
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
				165				170						175	
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
			180					185					190		
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
		195					200						205		
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

210		215		220											
Lys	Leu	Ser	Asp	Arg	Leu	Lys	Ser	Leu	Gly	Ala	Glu	His	Val	Ile	Thr
225					230					235					240
Glu	Glu	Glu	Leu	Arg	Arg	Pro	Glu	Met	Lys	Asn	Phe	Phe	Lys	Asp	Met
				245					250					255	
Pro	Gln	Pro	Arg	Leu	Ala	Leu	Asn	Cys	Val	Gly	Gly	Lys	Ser	Ser	Thr
			260					265					270		
Glu	Leu	Leu	Arg	Gln	Leu	Ala	Arg	Gly	Gly	Thr	Met	Val	Thr	Tyr	Gly
		275					280					285			
Gly	Met	Ala	Lys	Gln	Pro	Val	Val	Ala	Ser	Val	Ser	Leu	Leu	Ile	Phe
290					295					300					
Lys	Asp	Leu	Lys	Leu	Arg	Gly	Phe	Trp	Leu	Ser	Gln	Trp	Lys	Lys	Asp
305				310					315					320	
His	Ser	Pro	Asp	Gln	Phe	Lys	Glu	Leu	Ile	Leu	Thr	Leu	Cys	Asp	Leu
			325					330					335		
Ile	Arg	Arg	Gly	Gln	Leu	Thr	Ala	Pro	Ala	Cys	Ser	Gln	Val	Pro	Leu
		340					345					350			
Gln	Asp	Tyr	Gln	Ser	Ala	Leu	Glu	Ala	Ser	Met	Lys	Pro	Phe	Ile	Ser
	355				360					365					
Ser	Lys	Gln	Ile	Leu	Thr	Met									
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&lt;210&gt; 5259

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5259

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306

&lt;210&gt; 5260

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5260

Met	Thr	Glu	Glu	Lys	Thr	Leu	Thr	Ala	Glu	Gly	Leu	Val	Lys	Leu	Leu
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Gln	Ala	Val	Lys	Thr	Thr	Phe	Pro	Asn	Leu	Gly	Leu	Leu	Leu	Glu	Lys
		20				25					30				
Leu	Gln	Lys	Ser	Ala	Thr	Leu	Pro	Ser	Thr	Thr	Val	Gln	Pro	Ser	Pro
	35					40				45					
Asp	Asp	Tyr	Gly	Thr	Glu	Leu	Leu	Arg	Arg	Tyr	His	Glu	Asn	Leu	Ser

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Thr Ser Leu				80

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&lt;210&gt; 5262

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5262

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Ala	Glu	Arg	Pro	Leu	Gln	Asp	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Gly	Pro
			20					25						30	
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
		35					40					45			
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
	50						55					60			

Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly  
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 85 90 95  
 Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu  
 100 105 110  
 Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe  
 115 120 125  
 Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp  
 130 135 140  
 Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp  
 145 150 155 160  
 Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg  
 165 170 175  
 Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly  
 180 185 190  
 Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe  
 195 200 205  
 Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg  
 210 215 220  
 Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys  
 225 230 235 240  
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 <211> 319  
 <212> DNA  
 <213> Homo sapiens

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<210> 5264  
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 <212> PRT  
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<400> 5264

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		20						25				30			
Trp	His	Phe	Asn	Ile	Asn	Gln	Lys	Arg	Phe	Ser	Lys	Ala	Gln	Pro	Thr
		35					40					45			
Cys	Phe	Leu	Leu	Ile	Leu	Pro	Cys	Gln	Lys	Ile	Met	Cys	Ile	Tyr	
	50					55				60					
Phe	Gln	Leu	Leu	Leu	Met	Glu	Thr	Thr	Ala	Met	Leu	Asp	Leu	Leu	Val
65					70					75				80	
Ile	Arg	Gln	Leu	Lys	Ser	Ala	Leu	Ser	Gln	Thr	Leu	Leu	Cys	His	Leu
			85						90					95	
Leu	Ile	Leu	Val	Leu	Ile	Cys	Ser	Arg							
			100					105							

&lt;210&gt; 5265

&lt;211&gt; 3203

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5265

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 <212> PRT  
 <213> Homo sapiens

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 Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg Gly Pro  
 50 55 60  
 Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly Gly Glu  
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 Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly Glu Gly  
 100 105 110  
 Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr Leu Gly  
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 Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu Glu Leu Leu  
 145 150 155 160  
 Val Leu Ala Gly Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu Leu Ala  
 165 170 175  
 Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro Thr Asn  
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 Arg Leu Leu Leu His Phe Gln Ser Pro Arg Val Pro Arg Gly Gly Gly

Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe	Pro	Pro	
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Arg	Pro	Ala	His	Gly	Asp	Val	Ser	Val	Thr	Asp	Leu	His	Pro	Gly	Gly	
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Thr	Ala	Thr	Phe	His	Cys	Asp	Ser	Gly	Tyr	Gln	Leu	Gln	Gly	Glu	Glu	
				245					250					255		
Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly	Glu	Thr	
			260				265					270				
Pro	Ser	Cys	Met	Ala	Ser	Cys	Gly	Gly	Thr	Ile	His	Asn	Ala	Thr	Leu	
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Gly	Arg	Ile	Val	Ser	Pro	Glu	Pro	Gly	Gly	Ala	Val	Gly	Pro	Asn	Leu	
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Thr	Cys	Arg	Trp	Val	Ile	Glu	Ala	Ala	Glu	Gly	Arg	Arg	Leu	His	Leu	
305					310					315					320	
His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu	Met	Val	
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Arg	Ser	Gly	Gly	Ser	Pro	Leu	Ser	Pro	Val	Ile	Tyr	Asp	Ser	Asp	Met	
		340						345					350			
Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser	Leu	Tyr	
	355						360					365				
Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu	Ser	Leu	
	370					375					380					
Arg	Phe	Glu	Ala	Phe	Glu	Glu	Asp	Arg	Cys	Phe	Ala	Pro	Phe	Leu	Ala	
385					390					395					400	
His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly	Ala	Leu	
				405					410					415		
Ala	Thr	Phe	Ser	Cys	Leu	Pro	Gly	Tyr	Ala	Leu	Glu	Pro	Pro	Gly	Pro	
		420						425					430			
Pro	Asn	Ala	Ile	Glu	Cys	Val	Asp	Pro	Thr	Glu	Pro	His	Trp	Asn	Asp	
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Thr	Glu	Pro	Ala	Cys	Lys	Ala	Met	Cys	Gly	Gly	Glu	Leu	Ser	Glu	Pro	
	450					455					460					
Ala	Gly	Val	Val	Leu	Ser	Pro	Asp	Trp	Pro	Gln	Ser	Tyr	Ser	Pro	Gly	
465					470					475					480	
Gln	Asp	Cys	Val	Trp	Gly	Val	His	Val	Gln	Glu	Glu	Lys	Arg	Ile	Leu	
				485					490					495		
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			500					505					510			
Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu	Arg	Gly	
	515						520					525				
Pro	Gln	Pro	Arg	Arg	Arg	Leu	Ser	Ser	Gly	Pro	Asp	Leu	Thr	Leu		

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 Ile Ala Asn Gly His Arg Thr Ala Ser Asp Ala Gly Phe Pro Val Gly  
    645                                      650                                      655  
 Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala  
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 Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys Trp Ser  
    675                                      680                                      685  
 Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro  
    690                                      695                                      700  
 Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln  
 705                                      710                                      715                                      720  
 Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile  
    725                                      730                                      735  
 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr  
    740                                      745                                      750  
 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn  
    755                                      760                                      765  
 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu  
    770                                      775                                      780  
 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile  
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    805                                      810                                      815  
 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val  
    820                                      825                                      830  
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&lt;210&gt; 5267

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5267

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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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			20					25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
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Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
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Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
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Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85					90						95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
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Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
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Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
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Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
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Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
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Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
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Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
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Gly	Asp	Gly	Tyr	Gly	Thr	Phe									

275

&lt;210&gt; 5269

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5269

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1177

&lt;210&gt; 5270

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5270

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          20           25           30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35           40           45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50           55           60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85           90           95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100           105           110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115           120           125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
130           135           140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145           150           155           160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165           170           175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180           185           190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195           200           205
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210           215           220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225           230           235           240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245           250           255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260           265           270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
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Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
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Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
305           310           315           320
Glu Lys Phe Leu Lys Thr Leu
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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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120

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&lt;210&gt; 5272

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

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Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly



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				100						105						110													
Glu	Ile	Pro	Leu	Pro	Pro	Ile	Leu	Leu	Gly	Arg	Leu	Gly	Ser	Asp	Pro														
				115						120						125													
Gln	Lys	Lys	Thr	Val	Cys	Ile	Tyr	Gly	His	Leu	Asp	Val	Gln	Pro	Ala														
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				165						170						175													
Ala	Gly	Trp	Ile	Asn	Ala	Leu	Glu	Ala	Tyr	Gln	Lys	Thr	Gly	Gln	Glu														
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Ser	Glu	Gly	Leu	Asp	Glu	Leu	Ile	Phe	Ala	Arg	Lys	Asp	Thr	Phe	Phe														
				210						215						220													
Lys	Asp	Val	Asp	Tyr	Val	Cys	Ile	Ser	Asp	Asn	Tyr	Trp	Leu	Gly	Lys														
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His	Ser	His	Lys	Lys	Asp	Ile	Leu	Met	His	Arg	Trp	Arg	Tyr	Pro	Ser														
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<212> DNA
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 gtgaattttt ctggacagaa aaggagagc taccaaattg tttttttctt tttaaaagga  
 4380  
 agtttaatgt ccgttgatc acaaatcagt gttaaaacac cagaacttta gccaaaataa  
 4440  
 atgtcttaca ttacaaagggt aaaaaaaaaa aaaaaaaaaa cccaaaaatt ttttataccg  
 4500  
 gaaatttgaa aaaaccccc atttcccccc aacagtgacc cggaacactc ctcatctat  
 4560  
 taattacacc attctcccat  
 4580

<210> 5274

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5274

Met	Ser	Gly	Ser	Phe	Glu	Leu	Ser	Val	Gln	Asp	Leu	Asn	Asp	Leu	Leu
1				5					10					15	
Ser	Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu
			20					25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
		35					40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

65		70		75		80									
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
				85					90					95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
			100					105					110		
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
		115				120					125				
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
	130					135					140				
Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
145					150					155				160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
			165					170						175	
Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
		180						185							

<210> 5275  
 <211> 810  
 <212> DNA  
 <213> Homo sapiens

<400> 5275  
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 cgtctcagcg taagacggcg ctattccgct gtaacagctt ccggcgggctc ctggatgttg  
 120  
 atgtcctgca tctaacgcgg tgtgaccccc gaagccgagc gagctccgga ggaatttcag  
 180  
 tatctgctac ggtaacttca tcagccccgc aagatggcga tgcaagcggc caagagggcg  
 240  
 aacattcgac ttccacctga agtaaactcg atattgtata taagaaattt gccatacaaa  
 300  
 atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatcaga  
 360  
 gtggggaaca cacctgaaac tagaggaaca gcttatgttg tctatgagga catctttgat  
 420  
 gccaagaatg catgtgatca cctatcgga ttcaatgttt gtaacagata ccttgtgggt  
 480  
 ttgtactata atgccaacag ggcatttcag aagatggaca caaagaagaa ggaggaacag  
 540  
 ttgaagcttc tcaaggagaa atatggcatc aacacagatc caccaaaata aatgttttct  
 600  
 acattttcat ttggactaaa tcccacgaat gacaactacc accttttttt cctttttaat  
 660  
 taatactaaa tattgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat  
 720  
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 780  
 tcgacgcggc cggcaattta gtagtagtag  
 810

<210> 5276  
 <211> 125  
 <212> PRT

<213> Homo sapiens

<400> 5276

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Met Ala Met Gln Ala Ala Lys Arg Ala Asn Ile Arg Leu Pro Pro Glu
 1           5           10           15
Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100          105          110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115          120          125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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gtggcgggcca tcacggccac ggagctgctc atcgtggtga agtacgaccc ccacacgctc
120
accctgtccc tgcccttcta catctcccag tgctggaccc tcggctccgt cctggcgctc
180
acctggaccg tctggcgctt cttcctgcgg gacatcacat tgaggtacaa ggagaccggg
240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
ccactggggc tggacgaaga cctgctgggg cctgggggtgg ccgagggcga gggagcacca
360
actccaaact gacctgggccc gtggctgcct cgtgagcctc ccagagccca ggcctccgtg
420
gcctcctcct gtgtgagtcc caccaggagc cacgtgcccg gccttgccct caaggttttt
480
tgcttttctc ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg cccagcaca
540
gcctcatctc catgtgtaca cgtgtgtacg tgtgtatgcg tgtgtgtacg tgtgtatgcg
600
tgtgtgtacg tg
612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5278

```

Ile Tyr Asp Phe Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro
1           5           10           15
Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
115          120

```

&lt;210&gt; 5279

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

```

atcaatggag cagaggagaa aattctagaa gatttccgaa aaacccacag cctgatgcc
60
cctgactttc agctgcaggc catgattcag gcagcaggaa agcttggtgtt gattgataaa
120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
180
tgccctcgaca tcctagaaga ttatttaatc cagagaagat acacctatga acgtattgat
240
gggcgagtac ggggaaacct gcgccaggct gccatcgacc gcttcagcaa gcctgactca
300
gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
360
gctgatacct gcatcatatt tgattctgac tggaaccac aaaatgactt gcaggctcag
420
gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
480
aattcctacg agcgcgagat gtttgacaag gccagcctaa agctggggct ggacaaggct
540
gttcttcaga catcaaccga aaggcgcgca ccaatgggta cagcactctc aaaaatggag
600
gtggaggacc tactccgaa aggtgcttat ggagccttaa tggatgaaga agatgaaggc
660
tccaagttct gtgaagaaga catagaccag attctgcaga ggcaaacgca caccatcacc
720
atccagtctg aggggaaagg gtccactttt gccaaaggcta gctttgtggc ttcaggaaac
780
agaacagata tttccttaga tgatcctaac ttttggcaga aatgggctaa aatagctgaa
840
ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgcgtgaga
900

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aagcagacca aacactacaa ctcgtttgag gaagacgagc tcattggagtt ttcagagtta  
 960  
 gacagcgact cagacgaaag gccacgaga tccaggcgcc tcaatgacaa agccaggcgc  
 1020  
 tacctccgag cggagtgcct ccgggtagag aagaacctgc tcattcttgg ctggggccgg  
 1080  
 tggaaggaca tcctgactca tggccgattc aagtggcatc tgaacgagaa ggacatggag  
 1140  
 atgatttgcc gtgccctcct ggtgtactgt gtcaagcatt ataaggggga cgagaagatc  
 1200  
 aagagtttca tttgggaact gatca  
 1225

<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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Ser	Pro	Asp	Ala	Pro	Asp	Phe	Gln	Leu	Gln	Ala	Met	Ile	Gln	Ala	Ala
			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35				40						45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55					60				
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
				85					90					95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115					120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130					135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170					175		
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
		180					185					190			
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
	195					200					205				
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210				215					220					
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230				235					240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245					250					255		
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
		260				265					270				
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu



```

      275              280              285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
 290              295              300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
 305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370              375              380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
 385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
      405

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<210> 5281  
 <211> 336  
 <212> DNA  
 <213> Homo sapiens

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<400> 5281
tgatcaacaa tacttttcag agtctcttgg ggtgtgatga gttaagcttc ctactggatg
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aatgcaaac cgcccaaat aaataccagg agcttaagaa tatttgcagc tatagggctc
120
aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag
180
aagagaaaac acaacgcatg tcattaatga gacatcacat gggacaatca ttgtccaaag
240
aagttgcaca tgtctcacc aaacctggag cagatcacga ttgggaaaac ctagagaaaag
300
acttgagatt gctcattaat ggggattatg aagaag
336

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<210> 5282  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

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<400> 5282
Met Gln Thr Ala Gln Asn Lys Tyr Gln Glu Leu Lys Asn Ile Cys Ser
 1              5              10              15
Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20              25              30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35              40              45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50              55              60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
 65              70              75              80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283  
<211> 1989  
<212> DNA  
<213> Homo sapiens

<400> 5283  
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ggcaagtgtgta acctacattc ccagcccacc agcctgacgc ccagccaggg agagagtacc  
120  
atggatggca tcattgaaca gaagagcatg ctggtgcaca gtaaaatcag tgatgctggc  
180  
aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg  
240  
tctgtttacc cagcgcccca gtaccagagc caccgggtgg gggccagcac agtgccggcc  
300  
agcctggaca gcagcaggag tgagccgatg cagcagctgc tggaccccaa caccctgcag  
360  
cagtcagtgg agtcccgcta ccggcccaac atcatcctct attcagaggg cgtgctgcgc  
420  
tcctgggggg acggtgtggc cgccgactgc tgcgagacca ccttcacga ggaccggtcg  
480  
cccaccaaag acagcctcga gtacccggat ggggaagttca ttgacctctc agctgatgac  
540  
ataaaaatcc acaccctgtc ctacgatgtg gaggaggagg aggagtcca ggagctggag  
600  
agcgactact caagcgacac agagagtgtg gacaatttcc tcatgatgcc cccgcgggac  
660  
cacctgggcc tcagtgtctt ctccatgctc tgctgcttct ggccctctggg catcgagcc  
720  
ttctacttgt cccatgagac caacaaagcc gtggccaagg gggacttgca ccaggccagc  
780  
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900  
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960  
ataccgcatg atgctgtaca gtacaaatga ttgccaaatg atgccacgaa gccttgggat  
1020  
ttctaccca tggatttatt ttgtttttat cctttaattt catgttcaca gcaactgtgta  
1080  
gagcaccaga cagacgggca ctgctaatac ttccaaagga aagctccaaa gatcccagcc  
1140  
cgcaaggctg tctctggatg gattctggtg gatgaatggc aacgcggctc tctgcagcct  
1200  
gccagtcccc agagtgcac cgcatagca atatacaaac agtccaaaaa agtgttttatt  
1260  
ttttatggaa tacggtgcaa taggcagagg acaagggaca catcactctt ctgtctgtgg  
1320  
ccctgctgga gtcccttctg ccccccggag tccacacgcc ttccctgcaa gacgagaatg  
1380

gggctgggaa gaaagaggca acaccacggc tggcaggagc cccgctgcac tgctctgcag  
 1440  
 acccattggc ctgaccctga gaagcagagc cagcaaagcc cgggacctgc ccctctttct  
 1500  
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 1560  
 cacagctacc cgcagcaat acgcactctt gggacctcgc tgatctagga tggggaggga  
 1620  
 ggccaccgcc cctcccaaga ctctcaaga aagagccccg cggttgetcc ggaaactcga  
 1680  
 ggcactgcag ctatgggcac tgcctcagcc taaagacaca ggggcgcctc ccaatcaccg  
 1740  
 cgctggcgga tgctcaccoc gtcataagca gaaactagt atcctggaaa tgagatgggc  
 1800  
 cttactctgt cgactaaatg aatagctatt ttcttgcac tttttaagt gcaactcttg  
 1860  
 cttcatgctg cttaagttac cagatgaatg ctgagaaata agtaatcaca gacattttaa  
 1920  
 taccatttca ttgctgtttt acgagtgttc attacttaac aaaaaattat ctttttagctt  
 1980  
 tttcgctta  
 1989

&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

Met	Asp	Gly	Ile	Ile	Glu	Gln	Lys	Ser	Met	Leu	Val	His	Ser	Lys	Ile
1			5						10					15	
Ser	Asp	Ala	Gly	Lys	Arg	Asn	Gly	Leu	Ile	Asn	Thr	Arg	Asn	Leu	Met
		20						25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50					55					60				
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70					75				80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85						90					95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
			100					105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu
145					150					155				160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165						170					175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
		180					185						190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

[illegible]

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<210> 5285
<211> 2155
<212> DNA
<213> Homo sapiens
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<400> 5285  
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120  
ccctatgtgc cgttacggca gcgccggcag ctactgctcc agaagctgct gcagcgaaga  
180  
cgcaagggag ctgcgaggga agagcagcag gacagcggta gtgaaccccg gggagatgag  
240  
gacgacatcc cgctaggccc tcagtccaac gtcagcctcc tggatcagca ccagcacctt  
300  
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360  
aagatcctgg agagtgttgc cgagggccga gcattgatgt cagtgaagga gatggctaag  
420  
ggcattacgt atgatgacct catcaaaacc agctggactc caccocgtta tgttctgagc  
480  
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540  
ggtatccac caccatcaa gagcttcaag gaaatgaagt ttctgcagc catcctgaga  
600  
ggcctgaaga agaaaggcat tcaccacca acacccattc agatccaggg catccccacc  
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780  
cgcgaggggc cctatggact catcatctgc ccctcgcggg agctggcccg gcagaccat  
840  
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900  
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960  
cacatgatgg tggccacccc ggggcgcctc atggatttgc tgcagaagaa gatggctcagc  
1020  
ctagacatct gtcgctacct ggccctggac gaggctgacc gcatgatcga catggggcttc  
1080  
gagggtgaca tccgtaccat cttctcctac ttcaagggcc agcgacagac cctgctcttc  
1140

agtgccacca tgccgaagaa gattcagaac tttgctaaga gtgcccttgt aaagcctgtg  
 1200  
 accatcaatg tggggcgtgc tggggctgcc agcctggatg tcatccagga ggtagaatat  
 1260  
 gtgaaggagg aggccaagat ggtgtacctg ctcgagtgcc tgcagaagac acccccgcct.  
 1320  
 gtactcatct ttgcagagaa gaaggcagac gtggacgcca tccacgagta cctgctgctc  
 1380  
 aagggggttg aggccgtagc catccatggg ggcaaagacc aggaggaacg gactaaggcc  
 1440  
 atcgaggcat tccgggaggg caagaaggat gtcctagtag ccacagacgt tgccctcaag  
 1500  
 ggccctggact tccctgccat ccagcacgtc atcaattatg acatgccaga ggagattgag  
 1560  
 aactatgtac accggattgg ccgcaccggg cgctcgggaa acacaggcat cgccactacc  
 1620  
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 1980  
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&lt;210&gt; 5286

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5286

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			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35				40					45				
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
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Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
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Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
			85					90					95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

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 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu  
 115 120 125  
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr  
 130 135 140  
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser  
 145 150 155 160  
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu  
 165 170 175  
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met  
 180 185 190  
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His  
 195 200 205  
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly  
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 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val  
 225 230 235 240  
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu  
 245 250 255  
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser  
 260 265 270  
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg  
 275 280 285  
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 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val  
 305 310 315 320  
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys  
 325 330 335  
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala  
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 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met  
 370 375 380  
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val  
 385 390 395 400  
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln  
 405 410 415  
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu  
 420 425 430  
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys  
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 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu  
 450 455 460  
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala  
 465 470 475 480  
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp  
 485 490 495  
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn  
 500 505 510  
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg  
 515 520 525  
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

530                      535                      540  
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu  
 545                      550                      555                      560  
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp  
                     565                      570                      575  
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly  
                     580                      585                      590  
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln  
                     595                      600                      605  
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser  
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 Ser Met Asp Phe  
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<210> 5287  
 <211> 581  
 <212> DNA  
 <213> Homo sapiens

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                     35                      40                      45  
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

50                      55                      60  
 Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn  
 65                      70                      75                      80  
 Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu  
                     85                      90                      95  
 Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala  
                     100                      105                      110  
 Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys  
                     115                      120                      125  
 Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu  
                     130                      135                      140  
 Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu  
 145                      150                      155                      160  
 Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly  
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 Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser  
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 <211> 361  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
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<400> 5290  
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                     20                      25                      30  
 Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His  
                     35                      40                      45  
 Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr



50	55	60
Leu Leu Gly Thr Asp	Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe	
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85	90	95

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 <211> 142  
 <212> PRT  
 <213> Homo sapiens

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 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro  
 35 40 45  
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu  
 50 55 60  
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65					70					75				80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg
				85					90				95	
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			100					105				110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp
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&lt;210&gt; 5293

&lt;211&gt; 1428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5293

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<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

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			20					25					30		
Arg	Val	Tyr	Asn	Gly	Arg	Leu	Lys	Val	Gln	Arg	Leu	Cys	Ser	Glu	Met
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Glu	Glu	Leu	Ala	Glu	His	Gly	Ile	Phe	Leu	Pro	Pro	Asn	Met	Gln	Gly
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Leu	Thr	Asp	Asp	Gln	Ile	Glu	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Trp	Gly
65				70				75						80	
Glu	Lys	Cys	Val	Pro	Ser	Gly	Gly	Ala	Val	Phe	Lys	Lys	Asp	Asp	Ile
			85					90					95		
Gly	Arg	Arg	Asn	Gly	Gln	Ala	Pro	Asn	Glu	Lys	Met	Lys	Gln	Val	Leu
			100					105					110		
Lys	Lys	Thr	Ile	Glu	Glu	Ala	Lys	Ala	Ile	Ile	Ser	Lys	Lys	Gln	Val
		115				120						125			
Glu	Ala	Gly	Val	Cys	Val	Thr	Met	Glu	Met	Val	Lys	Asp	Ala	Leu	Asp
130					135					140					
Gln	Leu	Arg	Gly	Ala	Val	Met	Ile	Val	Tyr	Pro	Met	Gly	Leu	Pro	Pro
145				150					155					160	
Tyr	Asp	Pro	Ile	Arg	Met	Glu	Phe	Glu	Asn	Lys	Glu	Asp	Leu	Ser	Gly
			165					170					175		
Thr	Gln	Ala	Gly	Leu	Asn	Val	Ile	Lys	Glu	Ala	Glu	Ala	Gln	Leu	Trp
		180					185						190		
Trp	Ala	Ala	Lys	Glu	Leu	Arg	Arg	Thr	Lys	Lys	Leu	Ser	Asp	Tyr	Val
		195				200						205			
Gly	Lys	Asn	Glu	Lys	Thr	Lys	Ile	Ile	Ala	Lys	Ile	Gln	Gln	Arg	Gly
210					215						220				
Gln	Gly	Ala	Pro	Ala	Arg	Glu	Pro	Ile	Ile	Ser	Ser	Glu	Glu	Gln	Lys
225				230					235					240	
Gln	Leu	Met	Leu	Tyr	Tyr	His	Arg	Arg	Gln	Glu	Glu	Leu	Lys	Arg	Leu
			245					250					255		
Glu	Glu	Asn	Asp	Asp	Asp	Ala	Tyr	Leu	Asn	Ser	Pro	Trp	Ala	Asp	Asn
		260					265					270			
Thr	Ala	Leu	Lys	Arg	His	Phe	His	Gly	Val	Lys	Asp	Ile	Lys	Trp	Arg
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Pro	Arg														

290

&lt;210&gt; 5295

&lt;211&gt; 1451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5295

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met  
 50 55 60  
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp  
 65 70 75 80  
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys  
 85 90 95  
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys  
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<210> 5297  
 <211> 5318  
 <212> DNA  
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 540

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 ttgctggttg agctcaggca ctgtcatgga cacccttaat tttaaaaggt tttaatcatt  
 6300  
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 6360  
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 6420  
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 6540  
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 6600  
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 6712

&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

Ala	Pro	Pro	Ala	Gly	Arg	Arg	Arg	Met	Gln	Ala	Ala	Pro	Arg	Ala	Gly
1				5				10					15		
Cys	Gly	Ala	Ala	Leu	Leu	Leu	Trp	Ile	Val	Ser	Ser	Cys	Leu	Cys	Arg
			20					25				30			
Ala	Trp	Thr	Ala	Pro	Ser	Thr	Ser	Gln	Lys	Cys	Asp	Glu	Pro	Leu	Val
		35					40				45				
Ser	Gly	Leu	Pro	His	Val	Ala	Phe	Ser	Ser	Ser	Ser	Ser	Ile	Ser	Gly

50 55 60  
 Ser Tyr Ser Pro Gly Tyr Ala Lys Ile Asn Lys Arg Gly Gly Ala Gly  
 65 70 75 80  
 Gly Trp Ser Pro Ser Asp Ser Asp His Tyr Gln Trp Leu Gln Val Asp  
 85 90 95  
 Phe Gly Asn Arg Lys Gln Ile Ser Ala Ile Ala Thr Gln Gly Arg Tyr  
 100 105 110  
 Ser Ser Ser Asp Trp Val Thr Gln Tyr Arg Met Leu Tyr Ser Asp Thr  
 115 120 125  
 Gly Arg Asn Trp Lys Pro Tyr His Gln Asp Gly Asn Ile Trp Ala Phe  
 130 135 140  
 Pro Gly Asn Ile Asn Ser Asp Gly Val Val Arg His Glu Leu Gln His  
 145 150 155 160  
 Pro Ile Ile Ala Arg Tyr Val Arg Ile Val Pro Leu Asp Trp Asn Gly  
 165 170 175  
 Glu Gly Arg Ile Gly Leu Arg Ile Glu Val Tyr Gly Cys Ser Tyr Trp  
 180 185 190  
 Ala Asp Val Ile Asn Phe Asp Gly His Val Val Leu Pro Tyr Arg Phe  
 195 200 205  
 Arg Asn Lys Lys Met Lys Thr Leu Lys Asp Val Ile Ala Leu Asn Phe  
 210 215 220  
 Lys Thr Ser Glu Ser Glu Gly Val Ile Leu His Gly Glu Gly Gln Gln  
 225 230 235 240  
 Gly Asp Tyr Ile Thr Leu Glu Leu Lys Lys Ala Lys Leu Val Leu Ser  
 245 250 255  
 Leu Asn Leu Gly Ser Asn Gln Leu Gly Pro Ile Tyr Gly His Thr Ser  
 260 265 270  
 Val Met Thr Gly Ser Leu Leu Asp Asp His His Trp His Ser Val Val  
 275 280 285  
 Ile Glu Arg Gln Gly Arg Ser Ile Asn Leu Thr Leu Asp Arg Ser Met  
 290 295 300  
 Gln His Phe Arg Thr Asn Gly Glu Phe Asp Tyr Leu Asp Leu Asp Tyr  
 305 310 315 320  
 Glu Ile Thr Phe Gly Gly Ile Pro Phe Ser Gly Lys Pro Ser Ser Ser  
 325 330 335  
 Ser Arg Lys Asn Phe Lys Gly Cys Met Glu Ser Ile Asn Tyr Asn Gly  
 340 345 350  
 Val Asn Ile Thr Asp Leu Ala Arg Lys Lys Leu Glu Pro Ser Asn  
 355 360 365  
 Val Gly Asn Leu Ser Phe Ser Cys Val Glu Pro Tyr Thr Val Pro Val  
 370 375 380  
 Phe Phe Asn Ala Thr Ser Tyr Leu Glu Val Pro Gly Arg Leu Asn Gln  
 385 390 395 400  
 Asp Leu Phe Ser Val Ser Phe Gln Phe Arg Thr Trp Asn Pro Asn Gly  
 405 410 415  
 Leu Leu Val Phe Ser His Phe Ala Asp Asn Leu Gly Asn Val Glu Ile  
 420 425 430  
 Asp Leu Thr Glu Ser Lys Val Gly Val His Ile Asn Ile Thr Gln Thr  
 435 440 445  
 Lys Met Ser Gln Ile Asp Ile Ser Ser Gly Ser Gly Leu Asn Asp Gly  
 450 455 460  
 Gln Trp His Glu Val Arg Phe Leu Ala Lys Glu Asn Phe Ala Ile Leu  
 465 470 475 480  
 Thr Ile Asp Gly Asp Glu Ala Ser Ala Val Arg Thr Asn Ser Pro Leu



485 490 495  
 Gln Val Lys Thr Gly Glu Lys Tyr Phe Phe Gly Gly Phe Leu Asn Gln  
 500 505 510  
 Met Asn Asn Ser Ser His Ser Val Leu Gln Pro Ser Phe Gln Gly Cys  
 515 520 525  
 Met Gln Leu Ile Gln Val Asp Asp Gln Leu Val Asn Leu Tyr Glu Val  
 530 535 540  
 Ala Gln Arg Lys Pro Gly Ser Phe Ala Asn Val Ser Ile Asp Met Cys  
 545 550 555 560  
 Ala Ile Ile Asp Arg Cys Val Pro Asn His Cys Glu His Gly Gly Lys  
 565 570 575  
 Cys Ser Gln Thr Trp Asp Ser Phe Lys Cys Thr Cys Asp Glu Thr Gly  
 580 585 590  
 Tyr Ser Gly Ala Thr Cys His Asn Ser Ile Tyr Glu Pro Ser Cys Glu  
 595 600 605  
 Ala Tyr Lys His Leu Gly Gln Thr Ser Asn Tyr Tyr Trp Ile Asp Pro  
 610 615 620  
 Asp Gly Ser Gly Pro Leu Gly Pro Leu Lys Val Tyr Cys Asn Met Thr  
 625 630 635 640  
 Glu Asp Lys Val Trp Thr Ile Val Ser His Asp Leu Gln Met Gln Thr  
 645 650 655  
 Pro Val Val Gly Tyr Asn Pro Glu Lys Tyr Ser Val Thr Gln Leu Val  
 660 665 670  
 Tyr Ser Ala Ser Met Asp Gln Ile Ser Ala Ile Thr Asp Ser Ala Glu  
 675 680 685  
 Tyr Cys Glu Gln Tyr Val Ser Tyr Phe Cys Lys Met Ser Arg Leu Leu  
 690 695 700  
 Asn Thr Pro Asp Gly Ser Pro Tyr Thr Trp Trp Val Gly Lys Ala Asn  
 705 710 715 720  
 Glu Lys His Tyr Tyr Trp Gly Gly Ser Gly Pro Gly Ile Gln Lys Cys  
 725 730 735  
 Ala Cys Gly Ile Glu Arg Asn Cys Thr Asp Pro Lys Tyr Tyr Cys Asn  
 740 745 750  
 Cys Asp Ala Asp Tyr Lys Gln Trp Arg Lys Asp Ala Gly Phe Leu Ser  
 755 760 765  
 Tyr Lys Asp His Leu Pro Val Ser Gln Val Val Val Gly Asp Thr Asp  
 770 775 780  
 Arg Gln Gly Ser Glu Ala Lys Leu Ser Val Gly Pro Leu Arg Cys Gln  
 785 790 795 800  
 Gly Asp Arg Asn Tyr Trp Asn Ala Ala Ser Phe Pro Asn Pro Ser Ser  
 805 810 815  
 Tyr Leu His Phe Ser Thr Phe Gln Gly Glu Thr Ser Ala Asp Ile Ser  
 820 825 830  
 Phe Tyr Phe Lys Thr Leu Thr Pro Trp Gly Val Phe Leu Glu Asn Met  
 835 840 845  
 Gly Lys Glu Asp Phe Ile Lys Leu Glu Leu Lys Ser Ala Thr Glu Val  
 850 855 860  
 Ser Phe Ser Phe Asp Val Gly Asn Gly Pro Val Glu Ile Val Val Arg  
 865 870 875 880  
 Ser Pro Thr Pro Leu Asn Asp Asp Gln Trp His Arg Val Thr Ala Glu  
 885 890 895  
 Arg Asn Val Lys Gln Ala Ser Leu Gln Val Asp Arg Leu Pro Gln Gln  
 900 905 910  
 Ile Arg Lys Ala Pro Thr Glu Gly His Thr Arg Leu Glu Leu Tyr Ser

915	920	925
Gln Leu Phe Val Gly Gly Ala Gly Gly Gln Gln Gly Phe Leu Gly Cys		
930	935	940
Ile Arg Ser Leu Arg Met Asn Gly Val Thr Leu Asp Leu Glu Glu Arg		
945	950	955
Ala Lys Val Thr Ser Gly Phe Ile Ser Gly Cys Ser Gly His Cys Thr		
965	970	975
Ser Tyr Gly Thr Asn Cys Glu Asn Gly Gly Lys Cys Leu Glu Arg Tyr		
980	985	990
His Gly Tyr Ser Cys Asp Cys Ser Asn Thr Ala Tyr Asp Gly Thr Phe		
995	1000	1005
Cys Asn Lys Asp Val Gly Ala Phe Phe Glu Glu Gly Met Trp Leu Arg		
1010	1015	1020
Tyr Asn Phe Gln Ala Pro Ala Thr Asn Ala Arg Asp Ser Ser Ser Arg		
1025	1030	1035
Val Asp Asn Ala Pro Asp Gln Gln Asn Ser His Pro Asp Leu Ala Gln		
1045	1050	1055
Glu Glu Ile Arg Phe Ser Phe Ser Thr Thr Lys Ala Pro Cys Ile Leu		
1060	1065	1070
Leu Tyr Ile Ser Ser Phe Thr Thr Asp Phe Leu Ala Val Leu Val Lys		
1075	1080	1085
Pro Thr Gly Ser Leu Gln Ile Arg Tyr Asn Leu Gly Gly Thr Arg Glu		
1090	1095	1100
Pro Tyr Asn Ile Asp Val Asp His Arg Asn Met Ala Asn Gly Gln Pro		
1105	1110	1115
His Ser Val Asn Ile Thr Arg His Glu Lys Thr Ile Phe Leu Lys Leu		
1125	1130	1135
Asp His Tyr Pro Ser Val Ser Tyr His Leu Pro Ser Ser Ser Asp Thr		
1140	1145	1150
Leu Phe Asn Ser Pro Lys Ser Leu Phe Leu Gly Lys Val Ile Glu Thr		
1155	1160	1165
Gly Lys Ile Asp Gln Glu Ile His Lys Tyr Asn Thr Pro Gly Phe Thr		
1170	1175	1180
Gly Cys Leu Ser Arg Val Gln Phe Asn Gln Ile Ala Pro Leu Lys Ala		
1185	1190	1195
Ala Leu Arg Gln Thr Asn Ala Ser Ala His Val His Ile Gln Gly Glu		
1205	1210	1215
Leu Val Glu Ser Asn Cys Gly Ala Ser Pro Leu Thr Leu Ser Pro Met		
1220	1225	1230
Ser Ser Ala Thr Asp Pro Trp His Leu Asp His Leu Asp Ser Ala Ser		
1235	1240	1245
Ala Asp Phe Pro Tyr Asn Pro Gly Gln Gly Gln Ala Ile Arg Asn Gly		
1250	1255	1260
Val Asn Arg Asn Ser Ala Ile Ile Gly Gly Val Ile Ala Val Val Ile		
1265	1270	1275
Phe Thr Ile Leu Cys Thr Leu Val Phe Leu Ile Arg Tyr Met Phe Arg		
1285	1290	1295
His Lys Gly Thr His Thr Asn Glu Ala Lys Gly Ala Glu Ser Ala		
1300	1305	1310
Glu Ser Ala Asp Ala Ala Ile Met Asn Asn Asp Pro Asn Phe Thr Glu		
1315	1320	1325
Thr Ile Asp Glu Ser Lys Lys Glu Trp Leu Ile		
1330	1335	

<210> 5303  
 <211> 334  
 <212> DNA  
 <213> Homo sapiens

<400> 5303  
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 acccagcggg atacgaaaga agttcaacgg caagccgggg cgcccggctg ggctcacgag  
 120  
 atggctgcat gaaggagtca cagcggcgag gctactgctc acgccacctg tccatgcgaa  
 180  
 ccaaagagat ggaaggcctg gcagacagtg ggcctggcgg ggcgggcccgg cccgcggccg  
 240  
 tggcagcccg tgagggcagg acggagtttg actgggggtga tgagacgtcg agggacagtg  
 300  
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 334

<210> 5304  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 5304  
 Met Trp Ser Ala His Pro Ala Glu Tyr Glu Arg Ser Ser Thr Ala Ser  
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 Arg Gly Ala Arg Leu Gly Ser Arg Asp Gly Cys Met Lys Glu Ser Gln  
 20 25 30  
 Arg Arg Gly Tyr Cys Ser Arg His Leu Ser Met Arg Thr Lys Glu Met  
 35 40 45  
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala  
 50 55 60  
 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr  
 65 70 75 80  
 Ser Arg Asp Ser Gly Gly Gln Gln Cys Gly Asp Ser Trp Arg Leu  
 85 90 95

<210> 5305  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

<400> 5305  
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 60  
 cctctgtccc ccaggatgtc ttgtggtggc ggtcggccgt tctgcccccc agggcacccc  
 120  
 ctgtttagg cactggctag ggaggggcag gcctccttcc tgcccctcga gacactcttg  
 180  
 ggagatgcat tttccgtctg gctcacaggg ggaggggtgag gctttgtacc ccagcccctg  
 240  
 cccagggcac tgtgaggggtg ggtgctggct gagcccctgg ggcagaagga gtggggcagg  
 300

cgggggtcttt gttctcggct cccacagcag agccagggtga gggggggcct gccaggacta  
 360  
 gacagaagtg gggcggcctg aaccctgctt ccagccatgg ccagggggcca cggaaccgg  
 420  
 caggggtgtc tgaagccgcc ctgtcagctg gccgggtccaa gcctgtggct ggagctgggtg  
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 540  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa  
 582

<210> 5306  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 5306  
 Met Ala Arg Gly His Gly Thr Arg Gln Gly Cys Leu Lys Pro Pro Cys  
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 Gln Leu Ala Gly Pro Ser Leu Trp Leu Glu Leu Val Cys Val Tyr Leu  
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 Ile Lys Ser His Arg Cys Leu Lys Lys Lys Lys Lys Lys Lys Lys  
 35 40 45  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 50 55 60

<210> 5307  
 <211> 1551  
 <212> DNA  
 <213> Homo sapiens

<400> 5307  
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 120  
 cattctgtct cccagccttt cttctctctt tgtgtgctcc cagcacttcc ttcttttcta  
 180  
 acatggcctg gagagagtct ctctctcctt gtctctgtct cttaataata gtttttaacg  
 240  
 tggacatctc ttccttggtg cagtgggttt taaatactga gaagaaccaa gtcaggtttt  
 300  
 ttaaagcaga ctaaaagcat gaaattgctt tcagaagaat gtatatcatc gggaaaagtt  
 360  
 cgggggcaga gtgggggaat caggctttat tcaaaagaaa cagttgaaaa catgggactt  
 420  
 tttctaccca atgcccattt cagcactcct ctgagactaa ttgggaaacg gggaaattct  
 480  
 tggaattttt tttttaagaa acttttttgt gtttttttta atttttaggtc acttattagt  
 540  
 gaaacctcat tttagatctg acattggtag atagatggat ttaggcaaat atgatgcgtt  
 600  
 tgtggggaat ccacgtgggt gacgttagaa cctcccttct gcagactgtt gcctgtcatc  
 660

taagcgaatt ggaaatgctg agcttccata agtcagctga gttttaaagg taaacgttat  
 720  
 ggctgaagta gtaaagcacc tgaccacaaa acctcttgta aaaacagccc tgagtaggta  
 780  
 tttccagggc tccacaaagt tgcttatggg aatcctgagc tgcttttcac catctcaaga  
 840  
 agcctaagaa gttatatatt taatcaggta gacaaaacag, ttcaaagcat aagggtccatg  
 900  
 gtggtggaaa atggatgcaa gtgattctaa gtttgtggat ttgtggatag cagagggatc  
 960  
 gggacctctt ggaggaaccc tgggtaccaa gctcccaggc ccttcctcta tcatggatgc  
 1020  
 tgggtgactt tgggaagtca ccacctcttc ccaagcctgt ttcccatatc acagatgtgg  
 1080  
 ggccatggcc togatgatgg tctccacagg tctttccacc tctgtgagtc caagtcaggt  
 1140  
 caatcagcaa ggaccatct ctgcctggg tcagctcctc agaaccaacc cccagcatct  
 1200  
 ctaaagcaaa agcctcacct caagggctgc tcagaagaga gcaccttcag catgagttgt  
 1260  
 tgctggaaga tctaataagc tgtgtttcct gggaagtggg gctttactta gccctgtgga  
 1320  
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 1380  
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 1440  
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 1500  
 gtttaataaa gttcctgttt atgagagtca tgtttcatct cagcttcttc c  
 1551

&lt;210&gt; 5308

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5308

Met	Leu	Gly	Val	Gly	Ser	Glu	Glu	Leu	Thr	Gln	Gly	Arg	Asp	Gly	Ser
1				5					10					15	
Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
			35				40					45			
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
			50			55					60				
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65					70				75					80	
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
				85				90					95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
			100					105					110		

&lt;210&gt; 5309

&lt;211&gt; 2078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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aacgccggcc actctaggat cctcactcgg ggagaggagg catagctcgc ggggtcaccc  
120  
tccacccgca acgtactccg ggtcggcctt gcgctcgggg cctgagaggg gcggcggcgg  
180  
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240  
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300  
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360  
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420  
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480  
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540  
gatttccttg acaagccaac cttgttgtca ccagaagaac tcaaggcagc aagtagagga  
600  
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660  
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720  
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840  
cttaggctag actgtgatgc taataccgta aacctagcaa gagagagctc tgctgacgga  
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960  
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1020  
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1080  
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1140  
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1380  
ataaaaatgt cttcagctcc atgctcaagg ttgaaagggt tacctgtaaa tttctgcccc  
1440  
cataacatta tactcatccc tagtagtgca ttttgggagt tggggtgga aggggtatgg  
1500

gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tatttaatgt  
 1560  
 aaggaacttg ggtgtaata gttgagagct gtttagtaat aaccagttt tcttgaggtc  
 1620  
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 1680  
 ctgtgcatta atggctctca tctgactcct gcattgtgtc ttatttttct gcatggattg  
 1740  
 gcataagacc attactaaaa tttggcacct gtgagatggt tgatattatg aacaggaaac  
 1800  
 ataatttaat gtatgaatag atgtgaattt gggatttcaa aatagatgaa taacaactat  
 1860  
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 1920  
 ttgtaacaca cttcatggtg ttcccatagg ctttgctgtc tagtcttata gtttgagggt  
 1980  
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 2078

<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

Met	Met	Ala	Gly	Cys	Gly	Glu	Ile	Asp	His	Ser	Ile	Asn	Met	Leu	Pro
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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
		20						25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
		35					40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50					55				60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65				70						75				80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
			85						90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
		115					120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130					135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145				150						155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
			165					170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
		180					185					190			
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
	195					200					205				
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

210	215	220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser		
225	230	235
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn		240
	245	250
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser		255
	260	265
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr		270
	275	280
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala		285
	290	295
Gln His Ser Leu Thr Gln Arg Leu Leu Val Ser Asn Ala Asn Gln		300
305	310	315
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala		320
	325	330
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly		335
	340	345
Gln Cys Thr Val Thr Glu Val		350
	355	

&lt;210&gt; 5311

&lt;211&gt; 572

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5311

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&lt;211&gt; 190

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5312

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&lt;211&gt; 2298

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5315

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&lt;210&gt; 5316

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

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 6324

&lt;210&gt; 5322

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5322

Met	Leu	Lys	Arg	Glu	Leu	Glu	Arg	Glu	Arg	Leu	Val	Thr	Thr	Ala	Leu
1				5				10						15	
Arg	Gly	Glu	Leu	Gln	Gln	Leu	Ser	Gly	Ser	Gln	Leu	His	Gly	Lys	Ser
			20					25					30		
Asp	Ser	Pro	Asn	Val	Tyr	Thr	Glu	Lys	Lys	Glu	Ile	Ala	Ile	Leu	Arg
			35				40					45			
Glu	Arg	Leu	Thr	Glu	Leu	Glu	Arg	Lys	Leu	Thr	Phe	Glu	Gln	Gln	Arg
			50			55					60				
Ser	Asp	Leu	Trp	Glu	Arg	Leu	Tyr	Val	Glu	Ala	Lys	Asp	Gln	Asn	Gly
65				70					75					80	
Lys	Gln	Gly	Thr	Asp	Gly	Lys	Lys	Lys	Gly	Gly	Arg	Gly	Ser	His	Arg
			85					90					95		
Ala	Lys	Asn	Lys	Ser	Lys	Glu	Thr	Phe	Leu	Gly	Ser	Val	Lys	Glu	Thr
			100					105					110		
Phe	Asp	Ala	Met	Lys	Asn	Ser	Thr	Lys	Glu	Phe	Val	Arg	His	His	Lys
			115				120					125			
Glu	Lys	Ile	Lys	Gln	Ala	Lys	Glu	Ala	Val	Lys	Glu	Asn	Leu	Lys	Lys
			130			135					140				
Phe	Ser	Asp	Ser	Val	Lys	Ser	Thr	Phe	Arg	His	Phe	Lys	Asp	Thr	Thr
145				150					155					160	
Lys	Asn	Ile	Phe	Asp	Glu	Lys	Gly	Asn	Lys	Arg	Phe	Gly	Ala	Thr	Lys
			165					170					175		
Glu	Ala	Ala	Glu	Lys	Pro	Arg	Thr	Val	Phe	Ser	Asp	Tyr	Leu	His	Pro

180                      185                      190  
 Gln Tyr Lys Ala Pro Thr Glu Asn His His Asn Arg Pro Tyr Tyr Ala  
           195                      200                      205  
 Lys

<210> 5323  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

<400> 5323  
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 300  
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 360  
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 475

<210> 5324  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 5324  
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   1                  5                  10                  15  
 Ser Val Leu Phe Leu Leu Ala Met Ala Thr Leu Trp Phe His Ser Leu  
           20                  25                  30  
 Met Arg Thr Leu Gly Thr Thr Ser Thr Ser Pro Pro Tyr Ser Ala His  
           35                  40                  45  
 Gly Arg Arg Pro Tyr Lys Trp Arg Gly Val Gly Arg Lys Ala Trp Gln  
           50                  55                  60  
 Leu Trp Thr Ala Pro Arg Ser Leu Leu Leu Ser Val Gly Leu Ala Ser  
   65                  70                  75                  80  
 Leu Arg Arg Ala Ser Gln His Ala Val Met Leu Pro Gln Leu Leu Ala  
           85                  90                  95  
 Val Ser Cys Leu Pro Asp Pro Gly Arg  
           100                  105

<210> 5325  
 <211> 938  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 5325

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 120  
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 180  
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 240  
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 300  
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 720  
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 780  
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 900  
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 938

&lt;210&gt; 5326

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5326

Met	Trp	Cys	Leu	Leu	Arg	Gly	Leu	Gly	Arg	Pro	Gly	Ala	Leu	Ala	Arg
1			5					10					15		
Gly	Ala	Leu	Gly	Gln	Gln	Gln	Ser	Leu	Gly	Ala	Arg	Ala	Leu	Ala	Ser
		20						25					30		
Ala	Gly	Ser	Glu	Ser	Arg	Asp	Glu	Tyr	Ser	Tyr	Val	Val	Val	Gly	Ala
		35					40					45			
Gly	Ser	Ala	Gly	Cys	Val	Leu	Ala	Gly	Arg	Leu	Thr	Glu	Asp	Pro	Ala
	50					55				60					
Glu	Arg	Val	Leu	Leu	Leu	Glu	Ala	Gly	Pro	Lys	Asp	Val	Arg	Ala	Gly
65					70				75					80	
Ser	Lys	Arg	Leu	Ser	Trp	Lys	Ile	His	Met	Pro	Ala	Ala	Leu	Val	Ala
			85					90					95		
Asn	Leu	Cys	Asp	Asp	Arg	Tyr	Asn	Trp	Cys	Tyr	His	Thr	Glu	Val	Gln

	100		105		110
Arg Gly Leu Asp Gly Arg Val Leu Tyr Trp Pro Arg Gly Arg Val Trp					
	115		120		125
Gly Gly Ser Ser Ser Leu Asn Ala Met Val Tyr Val Arg Gly His Ala					
	130		135		140
Glu Asp Tyr Glu Arg Trp Gln Arg Gln Gly Ala Arg Gly Trp Asp Tyr					
145		150		155	160
Ala His Cys Leu Pro Tyr Phe Arg Lys Ala Gln Gly His Xaa Ala Gly					
	165		170		175
Arg Gln Pro Val Pro Gly Arg Asp Gly Pro Leu Arg Val Ser Arg Gly					
	180		185		190
Lys Thr Asn His Pro Leu His Cys Ala Phe Leu Glu Ala Thr Gln Gln					
	195		200		205
Ala Gly Tyr Pro Leu Thr Glu Asp Met Asn Gly Phe Gln Gln Glu Gly					
	210		215		220
Phe Gly Trp Met Asp Met Thr Ile His Glu					
225		230			

&lt;210&gt; 5327

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5327

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120  
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900



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 2040  
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 2084

&lt;210&gt; 5328

&lt;211&gt; 694

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

Glu	His	Ser	Gly	Leu	Tyr	Val	Asn	Asn	Asn	Gly	Ile	Ile	Ser	Phe	Leu
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Lys	Glu	Val	Ser	Gln	Phe	Thr	Pro	Val	Ala	Phe	Pro	Ile	Ala	Lys	Asp
			20					25					30		
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35					40					45			
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

50	55	60													
Ala Thr Glu Asp Val Arg His Tyr Phe Pro Glu Leu Leu Asp Phe Asn															
65	70	75	80												
Ala Thr Trp Val Phe Val Ala Thr Trp Tyr Arg Val Thr Phe Phe Gly															
	85	90	95												
Gly Ser Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr															
	100	105	110												
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp															
	115	120	125												
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly															
	130	135	140												
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr															
145	150	155	160												
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr															
	165	170	175												
Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp															
	180	185	190												
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu															
	195	200	205												
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val															
	210	215	220												
Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly															
225	230	235	240												
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln															
	245	250	255												
Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys															
	260	265	270												
Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys															
	275	280	285												
Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly															
	290	295	300												
Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu															
305	310	315	320												
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser															
	325	330	335												
Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe															
	340	345	350												
Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys															
	355	360	365												
Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln															
	370	375	380												
Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg															
385	390	395	400												
Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala															
	405	410	415												
Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu															
	420	425	430												
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn															
	435	440	445												
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr															
	450	455	460												
Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser															
465	470	475	480												
Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His															